Obituary

PROFESSOR BAILEY

Because, tragically, he was destined to spend the last few years of his life in hospital Dennis Bailey was known latterly neither to junior members of the College nor even to the younger of our senior members. But by those who did know him, either as a colleague or as a teacher, he will be vividly remembered with affection, respect and gratitude. All will wish to extend their sympathy to his widow and to their son John.

S.J. Bailey (and I never did discover how he came to be known as Dennis) was a farmer's son. His academic career followed rather unorthodox lines for a future professor of law: after leaving school in Taunton he spent a brief period at Guy's Hospital Medical School before coming up to St. John's in 1919 to read Natural Sciences. After taking Part I of that Tripos he changed to the Law Tripos, taking Part II in 1923. He was called to the Bar but decided not to practise and instead accepted a teaching post with a well-known firm of London law tutors where, as he would recall in later life, he gained invaluable experience in the special techniques of teaching law to the young. His first University appointment was at Aberystwyth and from there he moved to Birmingham, returning to St. John's as a Fellow in 1931 at the age of thirty.

As a scholar Bailey's chief interest lay in the field of legal history, especially the development of English property law; and details of some of his many publications can be found elsewhere (see e.g. <u>The Times</u> of 19 August 1980). His best-known contribution to legal literature however was undoubtedly his <u>Law of Wills</u>, first published in 1935 and later running to as many as five editions. This was a masterly and quite unrivalled account of an intricate subject, in which Bailey demonstrated to the full his skill at unravelling complex and obscure topics and then presenting them with a lucidity which earned him the gratitude of practitioners and students alike.

Bailey was not only a distinguished scholar: he was a teacher of very rare quality indeed. The English law of real property is said by some cynics to be devoid of human interest and certainly, unlike some other branches, it does not abound in colourful cases. It thus presents a challenge to the lecturer who wishes his audience to appreciate the intricacies of the subject and to learn them in a palatable way. Bailey was adept at this. There were no gimmicks and he did not play to the gallery. But by means of a superbly structured approach and the use of striking illustrations with a certain home-spun quality he captivated his audience. Generations of undergraduates learnt complex principles of property law through the medium of characters like 'Little Tomkins' and 'Matilda', not to mention the errant trustee who on realising his lapse decided to put on his running shorts to try to escape from justice.



Those who were fortunate enough to be supervised by Bailey were the beneficiaries of other aspects of his remarkable skills. There was of course no nonsense like reclining in easy chairs: his pupils sat round a table in a business-like way. Essays would have been marked in advance (rather severely one sometimes felt) with copious marginal comments written in red ink in a tiny but very neat hand. Yet there was nothing tense about the supervision's atmosphere. Bailey kept his pupils on their toes with plenty of penetrating guestions, but he would never parade his own learning and indeed would affect a disarming forgetfulness or naivety when approaching the problems on his guestion sheet. His supervising came to an end on his election to the Rouse Ball Chair of English Law in 1950: and unfortunately at about the same time he was transferred by the Faculty Board to LL.B. lecturing, so that undergraduates both in the College and University were deprived of his teaching. (When he was asked by the Faculty to resume undergraduate lecturing in 1962, only a few years before his retirement, it was to give courses in a subject newly introduced into the Tripos and it seems that he did not kindle interest quite as successfully as in the earlier period.)

Bailey was Senior Proctor before the War and he became a Tutor of the College in 1939, holding office until his appointment to a Readership seven years later. Rumour has it that as a Tutor 'he never made a mistake', a rare distinction one might say for a Tutor of St. John's. To the young who were in need he was especially kind; and many are the careers which have been shaped as a result of advice and guidance generously given.

Those who were privileged to know him as a colleague will have many memories. On committees he would generally allow others to have their say, eventually and with much diffidence asking a question or making an observation which as likely as not would expose some fatal weakness in the proposal being put forward. In general Bailey was somewhat averse to change, but would resign himself to it with reasonable equanimity when the majority insisted. As an examiner he had the enviable knack of being able to design a question of deceptive simplicity which would appeal to all categories of candidates, but which invariably revealed the sheep and the goats. He was a man too of remarkable versatility, even in his later years, and, for example, at the age of 60 he published a poem in this journal.

On social occasions Bailey's companionableness proved a great asset. For those who already knew him it was a delight; and for the newcomer, particularly if shy or nervous, it was a godsend. Nobody sitting next to him at dinner would be allowed to feel uncomfortable: all were immediately put at their ease by his engagingly simple manner and lack of any affectation. (If plums had been served on the High Table he would of course proceed to ascertain whether his destiny was as tinker, tailor, soldier or sailor.) Shrewd and perceptive though he undoubtedly was, he often seemed intent on disguising these qualities; and although his modesty was endearing, the College was probably the poorer when because of it he declined a widely supported invitation to be nominated for the office of President.

His appearance was characterised by a remarkably straight back, and also by a rather wizened countenance which at first sight might be thought to betoken gloom. But then, soon after a conversation had begun, his whole face would suddenly light up with a most marvellous smile. This of course was the real Dennis Bailey; and this in all probability is the memory which will be treasured most of all by his very many friends.

J.C.H.

Reviews

Alec C. Crook, From the Foundation to Gilbert Scott: a history of the buildings of St John's College, Cambridge, 1511 to 1885. Cambridge: printed for the College. 1980. £9; £5 to Junior Members.

The College was already indebted to Mr Alec Crook for his earlier book <u>Penrose to Cripps</u> (1978), in which he told the history of the College buildings from 1885 to 1978 (see <u>The Eagle</u>, No 287, pp. 27-30). That book not only provided the first full account of additions and alterations to the fabric of the College over the past century but also had the unique interest that it was written by the architect immediately in charge of the major restoration of the older Courts, begun in 1934 and taken up again in 1958 after a long interruption caused by the war.

He has now greatly increased that indebtedness by this new book telling the history of the buildings over the whole period from the foundation of the College in 1511 to 1885, including therefore the great changes of the seventh decade of the nineteenth century, the building of the new Chapel, the enlargement of the Hall, and the building of a new Master's Lodge, with the drastic demolitions these changes involved.

This long period is, of course, covered in the second volume of the great work by R. Willis and J.W. Clark, <u>The Architectural History</u> of the <u>University of Cambridge and of the Colleges of Cambridge and</u> <u>Eton (1886)</u>, a source of information on the buildings of Cambridge that can never be superseded. Mr Crook naturally draws upon this source, and upon the other relevant published sources, the writings of Torry, Babbington, Mullinger, Bonney, Scott, the Cambridge volumes of the Royal Commission on Historical Monuments (1959), and the rich resources of <u>The Eagle</u>. A Bibliography duly lists them all. But he also draws directly upon original material in the College archives, accounts, plans, contracts, correspondence, and the Conclusion Books of the Master and Seniors. Some of this material has not previously been used in writings on the buildings.

Obituaries

E.W.R. Peterson, Founding Secretary of the Johnian Society - A Personal Note

Known as Jack in his family but as Pete to all his friends, E.W.R. Peterson was born in 1896 in Cranbrook, Kent. He joined up early in the First World War and while on service as a despatch rider he had one leg badly damaged. In after life he used to say that he did not mind a pain in that leg because he got a pension for it, but he objected strongly to a pain in the other. In 1919 he came up to St John's to read Engineering under parental pressure, graduating in 1922 and taking his M.A. in 1926. But this work did not suit him and soon he followed his father to the Inner Temple to read Law.

It was at this early stage that he met Sir Edward Marshall Hall and between them they founded the Johnian Society in 1924. Pete was the first Secretary and he held that position for 29 years. In due course he became Solicitor to Queen Anne's Bounty; when this was merged with the Church Commissioners he took a pension and retired in 1950.

His two hobbies had already showed themselves - cooking and sailing - two that combined perfectly. During the Second World War he took on the duties of Honorary Secretary of the Royal Ocean Racing Club and did much to hold that organisation together in a difficult time; they were bombed out and Pete had to set up the Club in other premises. In 1946 he was elected Rear-Commodore, and it was in this capacity that he took the yacht Latifa across the Atlantic to show the flag in the first post-war Newport to Bermuda race - a rare distinction at that time.

After his retirement from the Law he bought a Dutch barge named Willemien and spent all the long summer months on the canals of Holland, Belgium and France, where he was a familiar figure. He got as far as Menton on the Mediterranean. Many of his friends used to join him for a few days at various places on his route, although sometimes it was rather a job finding him. If you stayed on board, the sleeping accommodation was somewhat cramped, but the company and the food made up for anything. It was a marvel to see what dinners came out of a galley in which no cat could ever have been swung. We found out later that one summer he had moored Willemien under the Pont Alexandre Trois in Paris and attended the Cordon Bleu School. In this period he wrote his little book, The Yachtsman's Cookbook.

Pete had been bombed out during the war, and in the winter months he had a somewhat peripatetic life. Eventually he came ashore in a ground-floor flat in Little Shelford where he had a bit of a garden and the use of a wine cellar. Here he lived peacefully for years, his life being enriched by the exercise of the Dining Privilege given him by the College for his service to the Johnian Society. This gave him the pleasure of becoming known to many younger Fellows and other members of his College, for which he always retained the deepest affection; they too enjoyed his company. His 80th birthday was celebrated by a small dinner in College attended by some of his oldest friends. It was in this happy period that he was honoured by being elected President of the Johnian Society in the 50th year of its existence, 1974.

On his last cruise he had reached Nancy; on starting homewards he hit an unmarked submerged wreck at the harbour entrance, and Willemien started to sink. Luckily help was at hand in the shape of a large crane on the quai, and she was beached with some damage including all the labels off his wine bottles. Later this provided some 'amusement as the only test of which bottle was which was always applied. After the accident Pete sued in a local Court and won handsome damages, including the cost of a Rhine pilot to take the boat home the quickest way to Holland. After full repairs to Willemien Pete sailed her across the North Sea for the last time and sold her to friends; she now lies peacefully on the Upper Thames.

In the last two years of his life, to his great sorrow, Pete became too infirm to come into College; the photograph reproduced here was taken in the room where he spent the night in College when he attended the Johnian Society in that year. After many years in his ground-floor flat, known as 'The Petery' he moved to a Wardencontrolled flat in Great Shelford. He died, at the age of 86, in hospital at Haverhill on 11 January 1983, and is buried in the Churchyard of Little Shelford.

N.F.M.H.



A.E. Martin 1901-1982

Arthur Martin joined the College Office staff in September 1926, when with an increase in the number of Tutors further secretarial assistance was required. He continued in the College Office until his retirement in September 1968. During the war he took over the main responsibility for the running of the office after E.A. Wood, who had succeeded E.W. Lockhart as chief clerk, was engaged on national service. When in 1946 Wood decided not to return to College employment, Arthur Martin was appointed Chief Clerk from Christmas 1946, holding this office until his retirement in September 1968.

As Chief Clerk he was a worthy successor to Lockhart in the tradition referred to by Dr Miller on pages 123-4 of <u>Portrait of a</u> <u>College</u>. He was devoted to the College, and ready to serve it in many ways. The introductions to <u>Portrait of a College</u> and to Volume 2 of the History of L.M.B.C. pay tribute to his generous help. He was a keen supporter of the Boat Club and of other College sporting activities.

He was a man who did many quiet kindnesses to a large number of people. For example, he personally took pensions to retired members of the staff thus maintaining a much cherished link for them with the College. After his retirement he for some time did valuable work in helping with Conferences, Feasts and the Chapel.

In his younger days he was a keen sportsman, playing Hockey for the Cambridge Hockey Club. He was also then connected with the Oratory of the Good Shepherd.

He was a man of boundless energy, with a wide range of interests, particularly in country affairs. He had an uncle who was a farmer and his friends often felt that Arthur would have liked to have been one too.

He continued to lead a busy and active life after his retirement. He was assistant honorary treasurer for the Victoria Homes; chief distributor for the Chesterton Church magazine; for some time he worked for the British Legion; and he was for many years Treasurer of Trinity College Field Clubs. Arthur was a keen gardener. He kept up a close contact with former colleagues, regularly exchanging books and magazines; and frequently visits to them would find Arthur arrive behind a large bunch of flowers for their wives.

Latterly he had begun to show signs of frailness, but could never be persuaded to ease up.

His sudden passing on 19 December was a shock to his friends, and we grieve with his family, yet we may feel that it was merciful that one who had led so full and active a life should have been spared the suffering of a long period of helplessness. One can only say with the Psalmist "He giveth his beloved sleep".

W.T. Thurbon

Obituaries

JOHN BROUGH

Ι

Professor John Brough, who died on 9 January 1984 after being struck by a car near his home at Bishop's Stortford, was an affiliated student in Classics and Oriental Languages at St John's from 1940 to 1942, and a Research Fellow of the College from 1945 to 1946. From 1946, when he took up an appointment at the British Museum, until 1948 he was a Supernumerary Fellow without Dividend. From 1967 until his death just two terms before he was due to retire, he was Professor of Sanskrit in the University and a Fellow of the College. Before his return to Cambridge in 1967, he had been in 1946 Assistant Keeper in the Department of Oriental Printed Books and Manuscripts at the British Museum, and from 1946 to 1948 Lecturer in Sanskrit at the School of Oriental and African Studies in the University of London. From 1948 to 1967 he was Professor of Sanskrit and Head of the Department of India, Pakistan and Ceylon at the School. He received the D.Litt. degree from Edinburgh in 1945, was elected Fellow of the British Academy in 1961 and was President of the Philological Society from 1961 to 1962.

Brough was a distinguished Sanskrit scholar who brought to bear on his subject a clear mind and a formidable range of ancillary skills. His training as a classicist had early provided him with experience of ancient literatures and with the techniques of philological and textual analysis. He first applied these techniques in producing a critical edition of a particularly difficult Sanskrit text, the <u>Gotra-Pravara-Manjari</u>, which he published as <u>The Early</u> <u>Brahmanical System of Gotra and Pravara</u> in 1953. The editing of corrupt Sanskrit and Prakrit materials, which survive often with little evidence as to their date of origin and transmission, presents enormous problems. But by the time of the publication in 1962 of his major work, a critical edition of a Prakrit text, the <u>Gandhari</u> <u>Dharmapada</u>, Brough had become an internationally recognized master of this field.

Brough was also well versed in formal logic and used his knowledge to give an account, in papers to the Philological Society, of the early Indian schools of logic and disputation. His interest in the development of north-west Indian Prakrit dialects led him to explore a particularly daunting category of evidence for the evolution of the pronunciation of Indian names and terms in the first millenium, namely medieval Chinese Buddhist transliterations of Sanskrit Buddhist terminology. From there he acquired a mastery of some of the most recondite material in the Chinese Buddhist canon, including seventh century Chinese accounts of Indian grammar. He was also familiar with the medieval Chinese sound system and with early Chinese phonological dictionaries and their organisation. In addition to his knowledge of classical Chinese he was able to use materials in Tibetan. He became an admirer of Japanese achievements



in Sanskrit studies, gained a reading knowledge of Japanese and developed working relations with leading Japanese Sanskritists. For some years before his death he had been planning a massive Sanskrit-Chinese Buddhist dictionary based on the indexes to the Chinese Buddhist canon that Japanese Buddhologists had produced since 1967. It was through him and partly in connection with this project that Professor M. Hara of Tokyo University came to the College from 1978 to 1979, as its second Japanese visiting Fellow.

Brough's scholarship was achieved by applying the most exacting standards and he held that only a training as thorough as the one he had himself received fitted a student for work in his field. He believed that recent trends in university teaching constituted a threat to the standards he knew, and his response to them throughout his career was defensive and unbending. He was generally resistant to the interest of disciplines other than philology, textual criticism and literary appreciation in the ancient Indian tradition, and gave little welcome to the movement, promoted initially by the Scarborough Report of 1948, to incorporate Sanskrit into the broader field of Indian Studies. He conceded only with great sorrow that his own tenure of the Chair of Sanskrit at Cambridge would be the last for the forseeable future and that the subject would henceforward be represented at lecturer level and as a component in a larger programme involving the Sub-Continent.

Brough's insistence on the highest standards in philology and textual criticism and his disdain for modish approaches ran counter to and over-rode some of his other instincts towards his subject. For he also saw classical Indian literature, both by virtue of its great size and because of its literary and intellectual wealth, as one of the world's great classical literatures and pleaded for its recognition as such. He never wholly resolved this conflict between insistence on the highest academic standards and a wish to make his subject more widely known. This tension was almost endearingly illustrated on a recent Open Day at the Faculty of Oriental Studies when he urged visiting schoolmasters not to think of him and of his colleagues as "remote and unusual beings", and at the same meeting he expressed his regret that modern sixth-formers studying classics were not taught Sanskrit cognates for Greek and Latin vocabulary.

Happily however Brough's scholarly life was not taken up exclusively by critical textual and philological projects, and he did occasionally manage to address a wider public. In the course of a period in hospital in the early 1960s he translated over 250 Sanskrit poems to form a volume in the Penguin Classics series published in 1968 as Poems from the Sanskrit. Both in his translations and in his introduction he indicated a profound enthusiasm not only for Sanskrit love poetry but for the verse of the classical and modern European tradition as well. His translations are delightful for their urbanity, wit and epigrammatic quality and for their range and stylistic inventiveness. For many in the College this slim anthology still comes as a revelation, both from the point of view of the highly sophisticated and refined culture to which it bore witness and because of what it told us of its translator. For a few of those who knew Brough only in the last period of his life might have suspected that behind the fastidious scholar beset by ill health and by the reverses inflicted on his subject there existed so playful, courteous and warm spirited an imagination. Those who were in the Fellowship when the book was published however may still recall the great pleasure its success gave him. For a time following its publication,

on occasions when wine was offered in Fellows' rooms, he would compose himself in the full lotus position, itself a feat beyond most members of his Faculty, and recite a particularly well turned poem from his anthology. The fastidious scholar and the enthusiast for Sanskrit love poetry met when in 1973 he delivered a public lecture in a series on Oriental verse traditions organized by the Faculty of Oriental Studies. Those who attended the lecture still remember the sense of conviction and the histrionic intensity with which he presented his subject matter. Such occasions however were far too few, and as in the last years of his life his health declined they became a memory only.

In addition to his professional scholarly interests, Brough had considerable and critical knowledge of music, was something of a mathematician and, at the more practical level, a carpenter. He was also an expert in botany and plant taxonomy, and his company was enlivened by the fund of anecdotes he had on botanical matters. He combined both linguistic knowledge, of Japanese, and botanical expertise in an attempt, to his regret unsuccessful, to have the spelling of the well known Ginko biloba corrected to Ginkyo biloba. (Ginkyo is a Sino-Japanese word meaning "silver apricot"; romanizing kyo, apricot, as ko makes it unintelligible to Japanese). After an $\overline{expedition}$ by car to Nepal in 1955-56 he and his wife Marjorie, to whom he was devoted and who shared his interest in botany, presented a large number of herbarium specimens to the Natural History Museum in London and living plants to the Royal Botanical Garden at Edinburgh. (For an account of the botanical aspect of this journey, see Marjorie A. Brough, "Plants on a journey", Journal of the Royal Horticultural Society Vol.LXXXIII (1958) Part 5, pp.200-216.) He often spoke of his garden at Bishop's Stortford, for here he was able to grow, in semi-naturalized conditions, some of the calcifuge specimens he knew from travelling in Nepal and northern India. Some of the rarer meconopsis, he claimed, had established themselves there and a sky-blue primula denticulata had also appeared. Yet for most members of the College this exotic horticultural domain stayed as closed as his interest in Sanskrit love poetry, which only the accident of an early illness had secured for a wider readership.

Before his health broke down, Brough dined regularly at the High Table, where he tended to take Guinness rather than wine. He was also punctilious in attending the great College feasts, especially the <u>St John ante portam Latinam</u> on 6 May. Those who appreciated the great rarity of his achievements will miss his company and conversation.

D. McMullen

ΙI

On 17 January, 1984, a letter from my friend Dr R. Glasscock awaited my return from abroad; it contained a copy of a Notice to Fellows as circulated in St John's College. I doubted my eyes, because it conveyed the sad news of my friend's death. Next day letters from Mr K.R. Norman and Professor John Crook reached here which informed me of the same news. Immediately I telephoned one after another to my colleagues among Indologists here in Japan who knew John Brough conveying the news, and they were equally shocked and distressed. I sent a cable of condolence to Mrs Brough, who used to be so much dependent upon and attached to her husband as everyone knows. He ascended to heaven, leaving his wife and friends behind in deep distress.

John Brough, the British Sanskritist of international repute, is the scholar whose name I came to know for the first time in 1952, when I was writing my B.A. thesis on ancient Indian speculations on language. Professor N. Nakamura suggested to me to read Brough's articles 'Theories of General Linguistics in the Sanskrit Grammarians' (<u>TPS</u>. 1951), 'Audumbarayana's Theory of Language' (<u>BSOS</u>. 1952), and 'Some Indian Theories of Meaning' (<u>TPS</u>. 1953). I still remember I was very much impressed with his kean insight into the problems and his fine presentation.

In the summer of 1954 I happened to find in the Maruzen Bookstore his <u>Early Brahmanical System of Gotra and Pravara</u> (Cambridge 1953), but I could hardly believe that this was written by the same author, John Brough. Yet, out of curiosity and familiarity with his name, I bought this book, which embellished a corner of my small collection of foreign books in 1954. In the ruin caused by the Second World War, as a young student in the Far East, I thought of this London scholar of eminence with awesome attachment.

In my early publications, one in \underline{IIJ} (1958) and another in \underline{JAOS} (1959) I quoted John Brough's articles and I sent offprints of them to him. He kindly answered me with nice remarks and encouragement. It was in the autumn of 1959 that I corresponded with him for the first time, and the letter I still keep is dated 4 November 1959.

In September 1965 John Brough landed at Yokohama harbour accompanied by his wife, being invited to the University of Kyoto under the auspices of the Japan Society for the Promotion of Sciences. I joined Professors Kajiyama and Ojihara of Kyoto University, who had met him previously in London, in order to receive him at the very moment of landing his first step in our country. I was excited in expectation of meeting in person the scholar whom I knew from his writings and through correspondence. Late in the evening he landed; in the darkness I noticed a slim, friendly-looking Englishman carrying a bag and portable typewriter. He settled at the International House of Japan, and a few days later I had an opportunity to spend one evening with him. However, I had to leave for Harvard for one year in the middle of September of the same year, and thus I could not take advantage of his first visit to our country. This visit took place soon after the publication of his Gandhari Dharmapada (London 1962), one of the most important publications in the field of Indology since the Second World War. I must mention that later I had a precious opportunity to read this book carefully with Mr Norman in the summer of 1979. In a brief talk with John Brough on that evening, I noticed his growing interest in Chinese.

His second visit to Japan took place in 1973. It was on a warm afternoon at the end of August, when I accompanied the late Professor Tsuji in order to receive the Broughs at the Haneda Airport. This time he settled at the Asia Centre, and after Professor Tsuji left we discussed the problems of Chinese translation of Indian words not directly from Sanskrit, but through Gandhari and other Prakrit languages. But this time Brough stayed mostly in Kyoto, and we in the Tokyo Indological Circle benefitted from his scholarship only in the last week of his stay in Japan in the beginning of December, when I requested him to give a lecture in our Department.

In 1977 he made his third visit to our country, under the auspices of the British Academy, with his new project of compiling a Buddhist Chinese-Sanskrit Dictionary and stayed for three months at the International Lodge attached to the University of Tokyo. It was the time when we repeated personal discussions, and I organized a meeting which enabled him to have opportunity to explain his idea of the Dictionary in front of Buddhist scholars in Tokyo. It was my great pleasure to preside over this meeting in such a friendly atmosphere, while interpreting to him Japanese scholars' comments and remarks, and explaining Brough's response to my Japanese colleagues. He was pleased that all these Buddhist scholars agreed with his idea and expressed their support. He returned to England in full hope, but was later discouraged, being unable to find any foundation to support his project financially. I still remember those days when we sat together in a corner of a small coffee shop near his residence after the discussion. We walked together in talk and each time we parted from each other at the Meguro station.

In 1978 I was granted a Fellowship at St John's College, and spent a year in Cambridge under the best care of the Broughs. I came to know the Master, Professor Mansergh, and Fellows of the College, and met in person the members of the Faculty of Oriental Studies. We discussed the Dictionary project, but I began to notice some symptoms already at that time which indicated the weakness of his health. He often complained of pains in his legs, and those who came to see him found him suddenly aged. I further noticed his worsening physical health when we met at the time of the World Sanskrit Conference held in Varanasi in October 1981.

In September 1982 he came to Tokyo, under the auspices of the British Academy, and stayed for six weeks. This time we worked hard in order to find some foundation to support his Dictionary Project, and we managed to persuade Mr T. Kubo, the abbot of the Reiyukai, who promised us to undertake this project in cooperation with Professor A. Hirakawa, and who will publish it in three years time. This is now in progress and I was able to communicate in person to him how it had been carried out under the directorship of Hirakawa when I visited Cambridge in April 1983 on my way back from Tubingen.

It is now my great regret that he will not be able to see his project realized. In fact we had expected him to write the preface and contribute several items to the Dictionary.

He came to Japan four times, each time accompanied by his wife. He was fond of this small island in the Far East and of its people, not only Indologists but also Botanists who were originally friends of Mrs Brough. Every time he visited Japan, all these friends were happy to entertain him and Mrs Brough. This gifted scholar, a friend of Japanese Indologists, will remain in our memory. Despite his unexpected death, his fine work in Sanskrit language and literature will remain for ever as an outstanding contribution to scholarship.

Minoru Hara

NORMAN FORDYCE MCKERRON HENRY

Ι

Norman's father W.M. Henry was Geography Master at Aberdeen Grammar School; a man of wide scholarly interest, his influence is clearly seen on the son. Thus while Norman entered Aberdeen University to read Geography, he was encouraged to spend a year reading English. By the time he had completed the four-year Honours degree course he was effectively a geologist, and when he came to Cambridge and St John's as a research student he went to work in the then newly founded Department of Mineralogy and Petrology whose existence owed so much to the veteran Johnian Petrologist Alfred Harker. The mid-thirties saw the rapid expansion of X-ray techniques in Crystal Structure analysis and Norman became enthralled by the elegance of these techniques: he was appointed Demonstrator in Crystallography in 1939 and held this and the subsequent lectureship until his retirement in 1978. Norman published no more than half-adozen short research papers and these before 1950; there is no doubt that his metier was as a teacher, organiser, and coordinator. As a teacher his insistence on analytical recititude and abhorrence of all theatricality made him somewhat dry for undergraduate taste, but he was much in demand as a supervisor and during the fifties and early sixties was noted for his ability to conduct concurrent supervisions for two groups in adjacent rooms. During the forties and fifties he performed valuable service as co-editor of the new journal Acta Crystallographica and as editor of the International Tables of Crystallography, and he also co-authored a highly successful textbook The Interpretation of X-ray Diffraction Photographs with H. Lipson and W.A. Wooster (1952).

Undoubtedly Norman's most important scientific contribution, however, was in his work on quantitative reflected light microscopy. The use of metallographic techniques in characterising opaque minerals (often called "Ore" minerals since most of the economically important minerals are opaque oxides or sulphides) had been pioneered in the early thirties but attempts to use quantitative characters such as reflectance and hardness had failed, due to the optical complexity of anisotropic structures and inadequately precise instrumentation. The problems posed were a considerable challenge and Norman's many talents seem almost to have been tailored for their resolution. His analytical and scholarly capacity was directed towards elucidating the manner of interaction between light and opaque substances; the results are presented in Microscopic Study of Opaque Minerals (1972) in collaboration with his old friend Raymond Galopin of Geneva. (Galopin's possession of vineyard in the Valais was not, as rumour had it, the cause of this collaboration, but it can have done it no harm). His flair for design, and his ability to collaborate unselfishly with other workers (often giving them the credit) led to crucial improvements in measuring devices during a period of rapid technological change. Lastly his flair for organising conferences and user schools promoted international agreement on standards and standardised modes of practise. In this his command of many European languages and his delight in speaking them was an enormous asset - at a time when Britons were held in deep suspicion all over the continent, Norman's patent pan-European attitude and joy in European cultures (especially those of Romance countries) created great good will and the atmosphere in which agreements and compromises were willingly made.

47



International accord was also promoted by a <u>Mineralogy and</u> <u>Materials News Bulletin</u> edited and produced by Norman which ran for over thirty issues until 1978, acting as a channel of communication between workers on opaque minerals. During this period a massive Data File on opaque minerals was commissioned by the International Mineralogical Association and collated and edited by Norman. Although debilitated by his illness, Norman kept his sense of scientific purpose until his final visit to Addenbrookes, leaving in his College Rooms an almost completed manuscript on the origin and measurement of colour in minerals - characteristically labelled "Colour Book".

The selflessness and uncalculating generosity that characterised his life endeared Norman to his scientific associates as to his other friends. A harrassed colleague on the first day of Full Term might be greeted by "Cheer up, Brother, there's a good time coming we're one sixtieth of the way through term!" He was always kind and welcoming to newcomers, especially research students from overseas, whose particular loneliness he seemed completely to comprehend. He could however make the mistake of assuming that his own altruistic temperament was shared by others, and was hardly popular when perhaps with more compassion than judgement he would accept a "third-world" student on the assumption that a colleague would supervise him.

Although far from being politically naive he was not really a political animal, detesting deviousness as he did. However he enjoyed getting things done and in the coups of his career it is clear that he far preferred the role of unknown king maker to the precarious eminence of a throne.

G.A. Chinner

ΙI

Norman Henry was elected to a (teaching) Fellowship of his beloved College in 1960, comparatively late in his career. He served the College as Steward between 1961 and 1969, and as Praelector between 1971 and 1975. In the former post he was able to give free rein to his considerable knowledge of food and wine; in the latter, as the Father of the College, to his shy Scottish love of formality and tradition.

He will be remembered with great affection as a true College man. He dined in Hall almost nightly and scarcely ever missed a Fellows' wine circle. His courtesy and kindliness were exemplary and he always took particular trouble to look after guests and strangers at High Table. He greatly enjoyed the company of scholars and to the last was assiduous in his reading of a wide range of literature quite apart from his chosen field. He particularly enjoyed the company of younger Fellows and in an avuncular manner was free with his advice about their careers. He was generous to a fault, giving a large number of lunch parties to chosen friends, an annual Christmas lunch for children of Fellows and (as it now appears) subsidising heavily from his own pocket the proceedings of the College Wine and Food Society of which he was the founder and which now is happily called by his name.

In general, Norman Henry's views were conservative though interestingly, his conversation contrasted sharply with the left-wing views to which he had been attracted in the 1930s. As a Fellow of

the College, his views were clear, critical and (again) conservative. The appointment of good tutors was to him the single most important of all the College's functions, for tutors were 'in the front line'; indeed, the good health of a/the College was best judged by the ready availability within its ranks of suitable tutorial material. The Council. whatever its composition. was characterised by feebleness. Change was invariably for the worse. Proper prudence exercised by those who sat in the Wine Circle should arrange the succession to major College offices, in each case, for at least the next two vacancies. The Steward, whoever he was, was always guilty of gross carelessness in the accentuation of French words on the menu cards; and specifically the Steward, because "all rot starts at the top". Other bachelor Fellows were often guilty of the serious misdemeanor of oratory and some others, depending on their views rather than their age, were afflicted by degeneration of the central nervous system. Such views, freely offered, were offered only in the privacy of the Fellowship and were never at variance with a fiercely held loyalty to the College. Woe betide any person, even a Johnian who, not a Fellow, dared to offer criticism of the College or its officers. And where the outward marks of loyalty are concerned, who other than N.F.M.H. would unflinchingly retain his accustomed dress of a (verv) dark suit with a Johnian tie whether in Aberdeen. Paris. or the heat of Italy in high summer?

It was Norman Henry's deep loyalty to the College which prompted him to encourage the editors of The Eagle to publish biographies of famous 'sons of Margaret' (as he called Johnians). In his last years he gave himself tirelessly to this task and, on his deathbed, was particularly concerned that his younger colleagues and friends should continue this work that he had begun. He was similarly much concerned to bring to publication an account of the occupancy of College rooms from 1936 to the present day.

Norman Henry was in his later years partially deaf, an afflication that he relished since it enabled him, by the discreet control of his ear-trumpet, to withdraw form conversations on topics uncongenial to him. Similarly he wore his prejudices lightly; for example, though a great admirer of proper painting, he was totally dismissive of all modern endeavour in this field.

N.F.M.H. began to suffer serious illness in 1981, and his greatest sadness was that he was advised to forego enjoying the wines (and especially Madeira) that he so loved. It was characteristic of his considerable resources of inner discipline that he did so at once and without question. Similar resources of inner discipline were accustomed to prompt Norman Henry to bring many a convivial evening to an end with a avuncular "Well now, brothers, it's time for the downy couch". It was not done to challenge this instruction.

On Sunday July 10th 1983, N.F.M.H. was himself bidden to the downy couch for the last time. He obeyed the summons with courage, unselfishness and tranquility. The precise time was that at which the Wine Circle was beginning to break up.

> "Forsake not an old friend; For the new is not comparable to him: As new wine, so is a new friend; If it became old, thou shalt drink it with gladness." Ecclesiasticus ix 10

> > A.A. Macintosh

MAXWELL HERMAN ALEXANDER NEWMAN

"Max" Newman, an Honorary Fellow of the College, died on 22 February 1984.

He was born in Chelsea on 7 February 1897 and was educated at an L.C.C. school and at the City of London School. He changed his original surname of Neumann to Newman by deed poll in 1916.

He was admitted to the College in 1915, and obtained a First in Part I of the Mathematical Tripos in 1916 and was a Wrangler in Part II with distinction in Schedule B (the then equivalent of Part III) in 1921. He was elected a Fellow of the College in 1923 and became a University Lecturer in 1927. In 1945 he succeeded L.J. Mordell as Fielden Professor of Mathematics in the University of Manchester and held the chair until his retirement in 1964. He was elected to the Royal Society in 1939, and was awarded its Sylvester Medal in 1959. He was President of the London Mathematical Society in 1950-51, and received its De Morgan Medal in 1962.

His main mathematical interest was in topology; he published some distinguished papers on its combinatorial aspects in 1926-32 and further important papers in the 1960s. He was the first to give regular lectures in Cambridge on algebraic topology; the writer attended his course on the subject in 1934. His introductory book <u>Elements of the topology of plane sets of points</u>, published in 1939, made the subject much more easily accessible to beginners than any previous text. He also had a keen interest in mathematical logic, on which he lectured in the 1930s, and he published some papers in that field and on related topics. As a College Supervisor he kept no store of solutions to past Tripos questions, but tackled questions as they came up, usually with success; or a series of supervisions might turn into a mini-course of lectures.

About 1938 he and Philip Hall started a joint seminar in algebra and topology, which played a part in introducing the modern axiomatic point of view into Cambridge Mathematics. Numbers were small, but interest was keen.

Newman spent most of the period 1939-45 at Bletchley Park, where he was able to apply his knowledge of mathematical logic to the design of machines for use in code-breaking. His interest in computing continued for a spell after the War, when he was involved in the early stages of development of the pioneer Manchester computer. He recruited a remarkably distinguished group of mathematicians into the University of Manchester and organised them into a most successful department.

During his time as a Fellow of the College Max took a great deal of interest in the history of the College its buildings, as is witnessed by the enjoyable series of articles that he contributed to The Eagle in 1932-34; and he helped to choose the architect for the new buildings in Chapel Court and North Court. His election as an Honorary Fellow in 1973 gave him great pleasure; he thoroughly enjoyed dining at High Table and taking part in College functions.

Max Newman married Lyn Irvine in 1934, and they had two sons. Throughout his time in Manchester, he retained his house in Comberton and spent as much time there as he could; he returned there altogether after his retirement, and remained for the remainder of his life, apart from some overseas visiting professorships. After his first wife's death in 1973 he married Margaret, widow of the distinguished geneticist Lionel Penrose, and she survives him.

Max's sometimes abrupt manner disguised a fundamental shyness, but he could be very good company, especially when he allowed full play to his occasionally sardonic sense of humour.

F.Smithies

(Photograph c.1936)



Obituaries

GEOFFREY BARRACLOUGH

Professor Geoffrey Barraclough died on 26 December 1984, aged 76. A historian whose career was remarkable both for its variety and its distinction, he was a Fellow of St John's 1936-46 and 1962-7.

Born at Bradford on 10 May 1908, the son of Walter Barraclough, merchant, and Edith Mary Barraclough of Ilkley, he was educated at Bootham School York and Oriel College Oxford before going to Munich in 1931 as Bryce Research Scholar. There he embarked on the research which between then and the end of the Second World War led to a substantial series of notable publications on the medieval papacy and the history of Germany. Some of these were pioneering studies of permanent value such as Public Notaries and the Papal Curia (1934) and Papal Provisions (1935); others, especially Medieval Germany (1938), The Origins of Modern Germany (1946) and Factors in German History (1947), were designed to make the results of recent German scholarship available to the English-reading public. The last two, appearing just after the War, struck some British critics as unduly indulgent to the German case. Yet they too have remained indispensable works for students of the subject - like their author, terse, forceful and comprehensive.

Barraclough had moved from Oxford to a Fellowship at St John's in 1936. In the following year he took up a University Lectureship. After war service in the R.A.F. he was appointed in 1946 to the Chair of Medieval History at Liverpool. Already, however, he was becoming increasingly disenchanted with medieval history and troubled by a sense of its irrelevance to 'modern problems'. The Battle of Stalingrad, he wrote in 1946, had 'made a total revision of European history imperative'. It had disturbed him in 1943 to realise that though he knew 'a great deal of the machinery of the papal chancery in the thirteenth and fourteenth centuries', he knew 'nothing of the Piasts, the Przemyslids and the Ruriks'. The effect of the revelation that Western Europe was no longer the centre of the world was to persuade Barraclough to change direction himself and to seek to influence the future of historical scholarship by giving due weight to the contemporary history of the extra-European world. History in a Changing World (1955) was the collection of essays in which he publicised his convictions. A radical manifesto, it was loudly acclaimed by part of the profession and eagerly espoused by sixth-form Oxbridge candidates who had outstripped Trevelyan, had assimilated Butterfield and were born too soon for E.H. Carr. Yet, as the contents of that collection indicate, Barraclough's medieval interests were not altogether over-shadowed by his new preoccupations. Both at Liverpool and after 1956 at London where he had succeeded Arnold Toynbee as Stevenson Research Professor of International Relations at the Royal Institute of International Affairs, he continued to publish work on medieval subjects. The last fruit of this branch of his interests was The Medieval Papacy (1968) and The Crucible of Europe (1976).



In 1962 he returned to St John's to work on a history of the contemporary world. History undergraduates of the College were sent to him for supervision on Early Political Thought and Medieval Europe. (At least one pair of Part I candidates were unclear for much of a term what they had been sent to him for. One thought Modern, the other Medieval. Neither, it turned out, was entirely mistaken.) As supervisor Barraclough presented n uncustomary challenge in a College renowned for the distinctiveness as well as the distinction of its History Fellows. He could certainly be bracing, telling you as you stumbled about in Plato's cave that the only political philosopher 'any good anyway' was T.H. Green. There would be long silences when all present stared transfixed at the copy on his shelves of Fischer's Griff nach der Weltmacht which somehow dominated the room. There was a very long silence when his favourite pipe tobacco went out of production. But, although to have an author identified as 'the man with the funny eyes' was exasperating even then, the benefits of his supervisions were disproportionately great. On a topic that fired him he was endlessly stimulating (though sometimes one felt that even his own enthusiasm somehow dejected him). He enjoyed a vaguely Bohemian reputation and was believed never to have forgiven Claude Guillebaud for something he had written in the thirties about Nazi economic policies. His regular obiter dicta on the grandees of the History Faculty were sometimes gnomic, usually acerbic. He gave the impression of being under constant siege. Supervisions were frequently conducted with all parties perambulating the room and with Barraclough for much of the time peering nervously out into Second Court. On one occasion the pupil coincided with him at the window as another Senior Member, then notable in St John's as he now is in the wider world, crossed the court. 'Mind you', G.B. remarked as if continuing a conversation, 'I don't blame him. I blame the College.' The Times obituarist recalled that 'he was not the easiest of colleagues', but also paid tribute, amongst his 'outstanding virtues', to 'the care, training and inspiration he gave to his juniors'. The present writer, who profited from his kindness by correspondence long after he had been taught by him, can vouch for the second part of that.

On leaving Cambridge in 1967 Barraclough held a succession of visiting professorships in the States, interrupted by his tenure of the Chichele Chair of Modern History at Oxford from 1970 to 1973. As in supervisions so in his career at large he was a restless figure. When he last visited the College in the summer of 1983, still spry at seventy-five, he was on his way to take up a chair at Munich - and was already planning the next move. In his <u>Introduction to Contemporary History</u> (1964) he described Sun Yat-sen as 'one of those rare men - in this respect not unlike Gladstone - who became more radical with age' (p.177). Some such epitaph might have contented Barraclough himself - though it would surely have mortified him to have been treated to an obituary in a college magazine.

Peter Linehan

Throughout the long period of his association with St John's extending over nearly seventy-three years, the College held a large place in Briggs's interest and affection. He served it in a wide variety of ways, as teacher, as administrator, and in other ways too, always with a care for its interests and with characteristic integrity. He found it possible to combine this strong College interest with a distinguished academical career.

He was admitted as a Scholar in 1912 under the tutorship of R.P. Gregory (himself a botanist), to whom he felt a permanent sense of gratitude. He was placed in the first class in both Parts of the Natural Sciences Tripos, taking Botany in Part II, and won the Frank Smart Prize in the University. He served in the Signals in the later years of the war of 1914-18 with the rank of Sergeant, and in 1919 returned to Cambridge. He was elected Allen Scholar in 1920, and in the same year was elected into a Fellowship of the College. He continued to hold a Fellowship until his death on 7 February 1985.

Immediately after his election as a Fellow he was appointed a Supervisor in the College and continued his College teaching for the next quarter of a century. In the meantime, he held a University Lectureship in Botany. In 1937 he succeeded F.F. Blackman as Reader in Plant Physiology, and a Professorship in Plant Physiology was created for him in 1946. He was elected Professor of Botany in 1948 in succession to Professor Brooks. He had been elected a Fellow of the Royal Society in 1935.

In October 1935, Briggs became Steward in the College, the third biologist in succession to hold the office, his two predecessors being F.F. Blackman and H.H. Brindley. He remained Steward until he became Professor of Plant Physiology in 1946. He was thus Steward throughout the difficult period of the Second World War, when the Initial Training Wing of the Royal Air Force, which was occupying most of the rooms in the New Court, shared with the College the use of the Hall and the Kitchen. The Kitchen Manager throughout his tenure of the Stewardship was A.J. Sadler, for whose ability and personal qualities Briggs always retains a special appreciation.

In May 1952, following the unexpected death of M.P.Charlesworth, Briggs was elected President, and he held the office for eleven years until 1963. Though he did not share the exceptional gifts of hospitality that Charlesworth possessed in so remarkable degree, he filled the office with his customary ability and good judgment and with the support and co-operation of the Fellows.

He had been elected a member of the College Council in June 1934, and he continued a member without intermission until his retirement from the Presidency in 1963. During some eleven years of his membership, from 1937 until 1948, he was Secretary of the Council. He also, for a brief period of three months, following the sudden death of Sir Henry Howard in the Michaelmas Term of 1943, was Acting Senior Bursar.

Brigg's tenure of these positions, together with his strong attachment to the College and devotion to its interests, naturally brought him into very close contact with many aspects of its affairs. Frominent amongst them was the care of its gardens (though he was

50



It is not given to many people to take an active part in the life of a College through so long a period of years, and St John's owes to Briggs a deep and lasting debt.

J.S. Boys Smith

Professor Briggs had one of the clearest, quickest and most incisive analytical minds in the biological world of his generation. Combined with a sound background in mathematics and physical chemistry, this caused him to feel that his own distinctive contribution to the development of biological science lay in the study of quantitative problems and specifically of quantitative problems in plant physiology; and hence in building bridges between the biological and physical sciences. These problems he approached from the broadest background of scientific principle, in which he was also an expert. Consequently, far from developing a one-track mind, some of his solutions had a wide generality. and he was always ready to discuss and contribute ideas towards the solution of comparable problems in other branches of plant science. He never grudged time spent on other people's work - indeed, one felt he enjoyed getting his teeth into unfamiliar problems and worrving them into shape. Many were his professional colleagues, both from this country and overseas, who would journey to Cambridge to have the benefit of his clarity of view.

The same outlook informed his undergraduate teaching, and it is perhaps well to recall that 50 years ago roughly half of the young biologists reading for the Natural Sciences Tripos had been trained at school in Physics, Chemistry and Mathematics; necessarily so, because their schools did not teach Biology. They were therefore better prepared for his style of teaching than their modern counterparts would be. Starting from the first principles, his lectures Would proceed by very detailed criticism of specific examples - in part destructive, exposing unsound experimental methods and trains of reasoning, but leading to the exposure of a sound and reliable Core which could with confidence be built into a wider picture. Their very detail made them an ideal introduction for those who were going to go on to experimental work; while anyone who wished could incidentally learn a great deal about straight and crooked thinking. He loved to demonstrate practical classes, because of the

opportunities they gave to discuss specific problems with individual students. Anyone with experience of practical plant physiology knows the almost infinite number of ways in which a living plant can surprise even the most wary of investigators - one can go on year after year with the same series of set exercises and never have a dull moment. This element of the unexpected gave him endless opportunities to lead individual students to make their own attack on problems of which the solutions were not obvious. In supervising the studies of undergraduates he liked to have small groups, of say three or four, so that if possible he could set them arguing with each other. He would ask probing questions on matters of principle, and would at once drop on any evidence of the slipshod - a word, a phrase, still worse a bit of reasoning. It was apparent that part of his endeavour was to inculcate a good scientific style - clear, concise and unambiguous, and written work always came back covered with suggestions for improvement. As an undergraduate, and equally as a research student I never knew him to relax these high standards. He was not one to suffer gladly people he thought ought to know better, and then his comments could be scathing indeed; yet he could take pains not to discourage the weaker undergraduates, and modify his pace to lead them gently along.

As would be expected with so consistent a mind, his treatment of his research students was all of a piece with what has already been said. He would encourage individuals to make their own approach to their own problems. He would look in every day in case there should be anything serious to discuss, and if not, have a chat, and preferably an argument, often over a cup of coffee. But he would go to endless pains to ensure that experimental methods were soundly based in every possible way. He would go through results with a fine-tooth comb and a keen eye for any possible flaw. He much approved of the old system whereby the Department of Scientific and Industrial Research required annual reports from all their research students, and the composition of these occupied much time during each Long Vacation (so-called). They provided him with ideal opportunities, not just for criticism of methods, results, and reasoning, valuable though this was, but also for criticism of wording, arrangement and presentation of the argument - in fact a substantial extension of the inculcation of a good scientific style already begun with undergraduates.

Thus his training comprised in effect a liberal education in scientific method - granted applied to a specific problem, but grounded all along on fundamental principles of wide application, leading to sound experimental methods and sound reasoning, and backed up by training in expression and presentation. It is small wonder that before the last war his students called him with respect and affection "The Maestro"; that almost all of them had no trouble with their degrees; and that so many should have risen to positions of eminence, often in fields remote from those in which they were at first trained.

Clifford Evans

In his long scientific career Professor Briggs worked on a much wider range of problems in plant physiology than would be likely for any individual worker today. In his Blackman Memorial Lecture in 1963, he defined plant physiology as "plant biology with special emphasis on the mechanism of changes going on in an organism"; he saw plant physiology not as a sub-division of botany, but as something which should permeate the whole subject. This broad view allowed him to range widely, to encompass a diversity of processes for study and of methods of investigation, in a logical progression of his changing interests. In spite of this diversity, the same highly individual stamp is exhibited in all his contributions, characterised by strong emphasis on rigorous quantitative analysis. He argued that the effort to make a mathematical formulation makes for precision in thinking, and he applied this philosophy to any of the physiological processes in plants which were accessible to the experimental techniques of his time.

In the early stages of his research career he was concerned with the quantitative analysis of plant growth, with the kinetics of enzyme action, and with photosynthesis. His paper with Haldane, in 1925, is a classic, presenting the first correct derivation of the relationship between the rate of an enzyme reaction and its substrate. Although Michaelis had considered the formation of an enzyme-substrate complex as the prerequisite for enzyme-mediated catalysis, he had assumed equilibrium between the two; Briggs and Haldane removed this falsely restrictive condition, and presented the kinetics of the steady state of formation and removal of the complex, by the sum of a forward reaction to products and the backward dissociation of the complex to unchanged substrate. The associated kinetic constant retains the name "Michaelis constant", but the Briggs-Haldane equation represents the foundation of enzyme kinetics. Briggs developed the theoretical analysis of enzyme kinetics in some detail, and put much of it into his Part II lectures, but without formal publication. His published work on the theoretical analysis of plant growwth, with Kidd and West, is also only a part of the whole; again his Part II lectures were a mine of unpublished work.

His work on photosynthesis, from 1920 until the early 1930s shows his sterling qualities as an investigator, combining a sound background in physics and chemistry, a broadly based understanding of the biology, and a talent for the mathematical analysis of his results. He made extensive measurements of the rate of photosynthesis as a function of the amount of chlorophyll, light intensity, concentration of carbon dioxide, temperature, in steady conditions, but also in intermittent illumination, in controlled Programmes of flashing light, and during the induction period, as the full rate built up after a period of darkness. By very detailed analysis of this large body of data he was able to formulate a minimum model for the process, involving a dark carbon fixation reaction, which generates the substrate for an energy-linked light reaction, followed by at least two subsequent reactions, which generate final products and regenerate the carbon acceptor. From our Point of view today, with the detailed chemistry identified by a range of sophisticated techniques, it is remarkable how much of the essential form of the process could be deduced by precise ^mathematical analysis of the kinetics, particularly of the ^{tr}ansients. The tremendous merit of Briggs' contribution lay in the replacement of vaguely suggested theories by a more precise formulation, put to a quantitative test. It is salutory to consider the intense labour involved in both measurement and calculation in

54

55

those days, before the advent of even hand-cranked calculators. Briggs' numerical analyses, often done on the backs of envelopes or other scrap paper, were hard-won, and the labour of calculation is now much lightened. Briggs would have welcomed this, while retaining the clear recognition of the need for precision in the mathematical formulation behind the modern "number-crunching".

By the 1930s his interests were moving towards the mechanism of salt accumulation in plant cells, and to the movement of water in plant tissues, topics which occupied him for the next forty years The same characteristics are demonstrated, very careful experimental measurements made under well defined conditions, then subjected to very detailed mathematical analysis. He now carried administrative burdens, and the experiments were done by his research students, but under his keen and critical eye. In the sessions in which their results were discussed he had an ear keenly attuned for the weak points in an argument, or for the unstated assumptions, and an eve for inconstancies in experimental conditions where definition and control were essential. Much of this work was analysed fully only after his retirement, but his contribution in this period went well beyond the published work, the solid theoretical treatments of processes of diffusion and ion exchange in plant tissues. He set standards for experimental investigations, and his influence can be traced in most of the work done on ionic relations in plants over the last thirty years, widely round the world; many of those who have made significant contributions in the field during this period either worked with Briggs, or were trained by him.

A good deal of his work in water and salt relations appeared in two monographs, the first published in 1961, with Hope and Robertson, on Electrolytes and Plant Cells, and the other written after retirement, and published in 1967, on Movement of Water in Plants. These present the distillation of his ideas, in a form accessible to a larger audience than the original theoretical analyses, and demonstrate the uniqueness of his approach. None of his papers were easy reading, and he made few concessions to his readers; he had a concise style in which mathematics and text were interspersed in a continuous flow, reflecting his own patterns of thought, but one which could be taxing for those whose grasp of theory was less wellfounded than his own. He believed that understanding could come only from sustained effort, and not by the acceptance of spoon-feeding. He demanded close attention from his readers; given such, the rewards were great.

Enid MacRobbie

We were privileged to be research students who came under the memorable influence of G.E. Briggs. He enjoyed his association with Australian plant physiologiests which began in the mid-twenties and lasted all his life; he once wrote that sometimes he felt that 'half his brains were in Australia'. This association began in the midtwenties with Petrie, and continued with Ballard and Robertson in the thirties, Mercer in the forties and Weeks and Hope in the fifties. Wood and J.S. Turner, although Blackman's students, were greatly influenced by Briggs. Pitman and Graham, English students of Briggs, came to Australia in the sixties. He had an enormous influence,



THEODORE MOIR CHALMERS

through his students and through his students' students, on the development of plant physiology in Australia.

We remember his approach to science as that of an applied mathematician. He used to say 'Let me write the equation; then you have something to think about'. He brought this approach to bear on plant problems when such precision was comparatively rare among botanists and he led his students to think similarly. He had strong views about both undergraduate and post-graduate teaching. His main purpose was to teach the student to think logically, critically and quantitatively, not just to convey information. Thus, his lectures were models of logical development, based mainly on his own ideas so that we felt research was being unfolded before us. His work was not as well known internationally as it deserved to be but, as most of it was put into his highly original lectures in both Part I and Part II, it was well known to students of Botany and was thus disseminated.

He took the supervision of post-graduate students seriously and maintained that a supervisor, to do justice to the student, should have no more than two, possibly three at any one time. He usually managed to see us individually each day for a chat about the research in hand or about pretty much anything. These visits were rewarding indeed. No explanation or development of ideas was too much trouble. With a stub of pencil, kept in his waistcoat pocket, he would painstakingly develop his arguments and draw out our contributions.

The Plant Physiology Club, later the Blackman Club, was a stimulating weekly discussion of topics in biology, physics and chemistry. In Easter Term its activities included Saturday walks, led by Briggs and ending in a convivial pub; discussion was lively and varied. We all, too, enjoyed the hospitality which he and Mrs Briggs extended.

Briggs was by no means a narrow specialist. His paintings, landscapes and still life, gave him great pleasure and his fine wood engravings became the basis of the Briggs' annual Christmas cards. In October 1984 he said that he had just done his 47th wood engraving for the next Christmas card, a remarkable tribute to his steadiness of hand and clearness of sight.

Australian botany owes him a great debt for, through his influence, plant physiology came of age. We remember him as an excellent teacher, pioneer of the quantitative approach in botanical research, mentor and friend.

> F.V. Mercer R.N. Robertson

The death of Theo Chalmers on 3 August 1984 was felt as a personal loss by many past medical students of St John's, Fellows of the College, students of the University Clinical Medical School and his patients in the area.

Theo Chalmers was educated at Edinburgh University and graduated in 1941. He served in the Royal Air Force and became a member of the Royal College of Physicians of London in 1948 and a Fellow in 1965. In 1950 he was awarded a Nuffield Travelling Fellowship and held this at the University of Pennsylvania in 1951. He later became a Senior Lecturer at the Welsh National School of Medicine and then First Assistant to the Professorial Unit at the Middlesex Hospital. During this latter post he began a collaboration with the Department of Biochemistry in the University of Cambridge and in 1962 he was appointed to the United Cambridge Hospitals as a Consultant Physician with a special interest in metabolic disorders. In 1965 he became the Dean of the Cambridge School of Clinical Research and Post-Graduate Teaching. Eventually the Cambridge University School of Clinical Medicine was established in 1975 and Theo was appointed Foundation Dean.

His research interests developed from 1950 when he wrote his M.D. thesis on the effects of autonomic drugs on sweat secretion in man. This led on to work on fluid and electrolyte balance and diabetes insipidus and the neurohypophysis. He became increasingly interested in endocrine medicine and during the late 60s continued a research interest into Calcium metabolism and parathyroid disorders and particularly the steroid hormone 125-dihydroxycholecalciferol.

Theo was elected a Fellow and Director of Medical Studies at St John's in 1965 and he taught Physiology to pre-clinical students for nearly twenty years. He organised hospital clinicians to present their patients to the undergraduates in evening meetings held during term-time. These became well established as the popular 'Clinical Forums'. In doing this he wished to bring the students into contact with patients suffering from physiological, anatomical and pathological problems and thus allow the medical students to obtain a wider perspective on their basic medical studies.

If one adjective had to be used to summarise his life 'caring' might be the best choice. Theo cared enormously about both his patients, and his students and their education. Many other Consultants had their own clinics interrupted when one of Theo's Patients needed attention. In his quiet way he always managed to Persuade the colleague to see the patient on the same day. He cared that medical students should be brought up in the finest traditions of British medicine and that both they and their patients should benefit from the satisfaction he knew came from practisisng good medicine. He also cared individually about the students, their careers and problems, and would deal with these in his usual modest, calm and thoughtful way.

In 1979 he relinquished the post of Dean and by then the Medical School was well established. He had also decided to give up his Directorship of Medical Studies at St John's and to go to work in

58

HUGH SYKES DAVIES

Africa. At this time however he was struck by his last illness and his health deteriorated very rapidly.

Theo had always been a dignified, understanding and sympathetic man. In his last illness this dignity was a lesson to everyone. Theo accepted that death was imminent, quietly retired to his house, put his affairs in order and avoiding any fuss of his colleagues and friends he died on 3 August. He left a wife, three daughters, two sons and a large family of grateful students and patients.

D.C. Dunn



Hugh Sykes Davies died in College on 6 June 1984 at the age of seventy four, several months after he had apparently recovered to normal life from a serious operation. He was the first staff Fellow in English to be appointed by the College; for over fifty years, interrupted by the War, his influence on successive generations of undergraduates and young scholars as a teacher of the English Language and its literature has been, and is, immense; and his learning was lightly worn.

Of Methodist background (his father was a Methodist minister later ordained in the Church of England) HSD went to Kingswood, the Methodist school. He came up to the College in 1928 as an Entrance scholar in Classics; but after taking a First in Part One he changed to the English Tripos, taking a First in Part Two with Distinction the following year and winning the Jebb Studentship and the Le Bas Prize. He quickly became marked as an intellectual among his thirties generation, recognised in that obscure Cambridge way by his election to the Cambridge Conversazione Society commonly called the Apostles. The gifted young Sykes with his verbal imagination and play of ideas was swept up into that avant garde manifestation of the time. Surrealism: he became an articulate spokesman for the movement. took part in the famous Surrealist Exhibition in London, chaired a lecture by Salvator Dali for whom he had to hold a pekinese on a lead, wrote its manifesto and, in Petron, wrote a surrealistic prose noem which still has the power to enchant. Sadly he succumbed to tuberculosis, and the launching of his academic career was seriously interrupted by a year spent in a Swiss sanatorium. This state of suspended animation may well in part explain a certain detachment, solitariness and an almost perverse lack of worldly academic drive.

Returning to Cambridge and the College as a teaching Fellow he became involved in that other manifestation of the 'thirties, Communism; and he joined the Party in 1937. His intellectual convictions about Marxism were real as was his commitment to the covert discipline of the Party from which he resigned only in the early 'fifties when he finally became convinced of the brutalities of Stalinism. But his politics were essentially those of a detached and donnish intellectual and it was never on the cards that he would emerge as a true politician, revolutionary or mainstream. It was somehow characteristic that he should become prospective Labour candidate for the Isle of Ely but should have had to withdraw because the Labour Party discovered his Communist Party membership, proscribed at that time. Instead, at the outbreak of the War he joined the Ministry of Food and with typical versatility turned himself into an able administrator. Here his clear, clever mind and Powers of lucid expression and his affable detachment found useful expression and were to stand him in good stead in later years when he served as secretary and then chairman of the English Faculty, as a Director of Studies in the College, secretary of the College Council and convenor of caucuses for the election of a Master.

His wartime experience dealing with the general public also led him to a concern for clear, well expressed English. This developed into a pre-occupation with the structure of the English language and led to his long and admirably persistent crusade for the teaching and Writing of good, plain English which manifested itself in the publication of his Grammar Without Tears of 1953 and his eloquent



advocacy of a Use of English paper for the O-Level examination.

Returning again to Cambridge after the War he settled to the life of lecturing and College teaching. As a lecturer, he first became known for his popular course on Chaucer which he gave in the old College lecture room in Chapel Court, the last university lectures to be given there. However, just when he was on the point of becoming typed as a medievalist he turned the powerful light of his mind to Italian and French literature for an advanced paper and, with his gift for language and languages, he became famous for his mastery of this also.

So manifold were his talents that he could never be corralled or corral himself into a pre-set role. His intellectual energy and the original and imaginative play of his mind found an outlet in the 1950s not only in literary criticism but as an accomplished novelist. He wrote three novels, <u>No Man Pursues</u>, <u>Full Fathom Five</u> and <u>The Papers of Andrew Melmoth</u>. All are of great quality, in imaginative levels of perception, in ingenious plots and lucid and sustained writing and they deserve greater recognition than, for some reason, they received on publication.

A common feature of the novels is the author's exploration of some particular lore or technique such as the habits of rats in Andrew Melmoth and deep-sea diving and underwater archeology in Full Fathom Five. This was a strong trait in their author also. It is said that when he was writing Andrew Melmoth he became known as the College rat catcher because he bet the Junior Bursar there were rats in the College and won his bet by laying out one morning a series of rat tails in evidence outside the Junior Bursar's oak. But Hugh's interest was not predatory. He had a passionate concern for the natural world and spent an essential part of his life away from Cambridge, in the fens and in Norfolk. He was a great coarse fisherman, sitting long solitary days on obscure fen riverbanks, expert on the habits of the pike and wont to keep live bait in his bath in College. For a time he had a cottage in Thetford Chase where he devoted his nights to stalking and observing deer in camouflaged dress. At his cottage at Snetterton, he cultivated an extensive wild garden of varieties of rhododendron on which he made himself an authority.

He was also fascinated by mechanical things. He made himself a dextrous player of the piano accordion; for a time he governed his day by the disconcerting sound of a repeater watch in his breast pocket; and he was a pioneer practitioner on an electric typewriter. When, much later, he gave the St John's College Lecture at the University of East Anglia he had become fascinated by audio-visual aids and he delivered a remarkable lecture-demonstration, of wit and much wisdom, in which by the aid of video-film and tapes, he wove together the poetic experiences of William Wordsworth and a local Norfolk poet. It may have been this which led him shortly before he died to act as protagonist in a television programme on the life of a Cambridge don; and it was predictable that in his last years he should be searching for the uses of the computer in literary analysis.

The subject of his statistical analysis, as of the audio-visual techniques of his Norwich lecture, was William Wordsworth. Ever since 1950 when the College commissioned him to organise the Celebration of the centenary of Wordsworth's death, Hugh Sykes Davies

concentrated his critical talents on Wordsworth's poetry and for the last twenty years of his life this became his central preoccupation. He was a Trustee of Dove Cottage and when he died he left among his papers a freshly original study of the poet which John Kerrigan has undertaken to edit. One suspects that this central concern of HSD's maturity went beyond the professional, the technical and critical and became for him the source of profoundly aesthetic and, it may be, spiritual sustenance. At any rate this writer will not forget one summer evening after Hall in the 1960s when he was privileged to be an audience of one in Hugh Sykes Davies's old room on I Staircase, New Court, listening to him and George Rylands alternately reading from the Prelude and the sonnets until the light faded. One sensed then that for Hugh, Wordsworth's poetry came as near as could be to expressing a tenable faith.

At deeper levels Hugh Sykes Davies was not an easy man to know. He was basically a solitary, with something withdrawn and private about him; yet he needed and commanded affection, from pupils with whom he always established a personal rapport, from young scholars whose talents he fostered, from the College staff with whom he had easy and natural relations and from his colleagues who could not fail to respond to his puckish wit, to the play of his mind in conversation and to he genial companionship. One suspects that the College meant more to him that he was willing to admit, even to himself.

Frank Thistlethwaite

PAUL ADRIEN MAURICE DIRAC

Professor Dirac died on 20 October 1984. An obituary will appear in next year's Eagle.

KENNETH SCOTT

In 1943, at the height of the war, the College elected two research Fellows, on the understanding no doubt that some time might elapse before they could embark on their research. One of these was Kenneth Scott.

The son of a bank manager, Scott had come up to the College from King Edward VI Grammar School, East Retford, in 1936. He read History for two years, taking a first class in that Tripos, and then changed with equal success to Law. His subsequent service in the Royal Artillery took him to India, whence he returned in 1946 to be called to the Bar by the Middle Temple prior to rejoining the College, where he soon became a Teaching Fellow. It was then that I met him as one of his first pupils. He was a patient and genial supervisor, who had a flair for bringing obscure legal principles to life, earning the respect and affection of all whom he taught. On one occasion he returned a pretty incompetent essay of mine with a characteristically generous and encouraging remark at the end, which I often recall when considering what comment to make on essays I now



have the task of reading. He lectured on Contract, by all accounts with great verve (though I never heard him myself) and was frequently engaged by the Extra-Mural Board for outside lecturing.

Kenneth Scott was the editor for a time of the leading practitioner's treatise on the Law of Contract; and his research on the control of business affairs of Jews by English Law during the century prior to their expulsion in 1290 yielded a fascinating article (see [1950] Camb. L.J. 446). He preferred on the whole, however, to concentrate his talents on teaching, on administration (he became Junior Bursar of the College as well as Secretary of the Faculty Board of Law), and on a remarkably wide variety of other notable activities; thus for many years he was Treasurer of the Union, he served as a major in the Territorial Army, and he became Chairman of a National Insurance Tribunal.

Debonair, strikingly handsome, and an instant success on any social occasion, he seemed most richly endowed. But adversity struck, and more than once. In a car accident in 1959 his skull was fractured and he later received much plastic surgery on his face; his son Ian was drowned soon after marrying; and for reasons of health he was obliged to retire in 1977. He and his wife Joan then moved to Barkway and subsequently to Royston, with the consequence that he was but rarely seen in College during these years. Smitten finally by a stroke, he spent many months in Royston hospital; and he was in a grievous state when I last visited him there in July 1984. He died a few weeks later, on 19 August, aged 66.

J.C.Hall



Obituaries

JEAN-BERTRAND MARIE BARRÈRE

The portrait-drawing now in the Library, by Juliet Pannett, tells astonishingly much: the immensely long, serious face, the watchful, quizzical, wistful glance. Those who knew him will read in it further characteristics, recalling the courteous manners, the fugitive wit and gaiety, the vulnerability, too, at times. When the French Government bestowed on the University an extra Chair of French Literature they set down in Cambridge a piece of the very soul of France. In his native Paris, in deer-stalker and Raglan and with his pipe, Barrère might strike his compatriots as a mixture of Sherlock Holmes and Colonel Bramble; in Cambridge, in spite of deer-stalker and Raglan and pipe, he was to the British, for all the affection he inspired, sometimes Frenchly baffling – and they to him Britishly the same.

Jean-Bertrand Marie Barrère was born in Paris on 15 December 1914. His place amongst the cultural elite of his generation is reflected in the places of his education: Lycée Buffon, Lycée Louis-le-Grand, Ecole Normale Supérieure. His agrégation was achieved just in time, in 1938. He was decorated with the *Croix de Guerre* 1939-45 for gallantry as a *sous-lieutenant* in the débacle of 1939-40; it hurt him that the British believed their allies had capitulated without a shot, for he had reason to know how fierce was the battle against the German advance. He served again in 1945 in Alsace with De Lattre.

Barrère obtained his Doctorate in 1949, and in 1950 was appointed to a Professorship at Lyon (being in fact seconded in 1950–52 to the Ibrahim University at Cairo). In 1954 he accepted the newly created Professorship in Cambridge, which held him until his retirement in 1982. His academic career was a disappointment to him. He had imagined that the acceptance by Cambridge of a Chair of French Literature from the French Government (which paid his salary: it was an alternative to a *Maison française*, which is what Oxford got) implied a greater commitment on the part of the University to the dissemination of French cultural values – as he represented them – than turned out to be the case. He had, by taking the Chair, derailed himself irremediably from the tramlines of French academic preferment, and he felt himself to remain unappreciated and without appropriate influence in his Faculty. Research students came but little his way, and his Officership of the *Palmes académiques* and, in 1969, his *Légion d'honneur*, were an only partial solace.

His graceful, sensitive, scholarly teaching and writing (always in French) seemed old-fashioned; and, indeed, increasingly it was, for he actually thought it important to look at a writer's working methods, his sketches, the development of his imagination, his intentions, and was irreconcilable to the prevalent doctrine that the author doesn't matter, only the text. Barrère's



Jean-Bertrand Barrère

inaugural lecture, 'Le regard d'Orphée, ou de fantômes et de poésie', was observe merely the title! - a highly-wrought literary essay. He was amateur musician and painter as well as professional literary critic, and his heart was set on a synthesis of the arts; the 'blurb' of one of his collections of critical pieces expresses very well what he was after: 'Une "critique de chambre" qui pratique avec ferveur une recherche vibrante de la vérité et qui s'exprime avec art et clarté, a-t-elle encore sa place?' Unfortunately, the answer given was no less often 'no' than 'yes'. The core of Barrère's scholarship was Victor Hugo; but who, on either side of the Channel, in this generation, has cared much for Hugo ('... Victor Hugo, hélas!)? Barrère's other extended writings were devoted to Romain Rolland and, most recently, to Claudel: they point to his passionate religious concern, of which there will be a word more to say. But he had business with all the best modern literature of his nation: 'L'idée du goût de Pascal à Valéry' (1972); 'La cure d'amaigrissement du roman' (1984, typically witty title for an extended essay on the 'Nouveau Roman'); and two collections of short studies, Critique de chambre (1974) with essays on Du Bos, Anouilh, Montherlant, Mauriac, Bernanos, Malraux, Sartre, and a 'Coda' on Gide, and Le regard d'Orphé ou l'échange poétique (1977), reprinting the inaugural lecture and adding some Hugo, Baudelaire, Rimbaud and Apollinaire.

As all Frenchmen, and practically no Englishman, Barrère, though in College speaking always, courteously, English, loved and cherished his native language. He did not encourage the likes of us to try to stammer it in his presence, for every howler was a stab at his heart. He did not much like, either, the things that were happening to it at home. He was avid for Simenon, but an attempt to interest him in Simonin (whose crime was to write in the *langue verte*) fell on stony ground; and as for San Antonio, he loathed that vulgarian – not without a pang of jealousy that the fellow was so disgustingly successful – being of very

strict, gentlemanly rectitude as to what ought to be uttered or discussed at all.

Barrère was elected a Fellow of St John's in 1957. Since he was for nearly thirty years a characteristic figure in the Fellowship (though, being from the outset a Professorial Fellow, little known to junior members), it would be satisfying to believe that his College provided something of a home for his - in the University and perhaps the world in general - rather lonely soul. Up to a point that was so, though we, his colleagues, ought not to flatter ourselves with exaggeration. Barrère did appreciate his College. He cherished its tradition from Margaret Beaufort and John Fisher, and his personal historical interest in Queen Henrietta Maria resulted in the excellent brief article he wrote (this alone in English) in The Eagle of 1974 about her stained-glass roundel portrait in the Combination Room. He enjoyed particularly the annual dinner on the feast of St John, 27 December, when the Fellowship is at its most familial, but also the intimacy of 'Saturday night dining'. His musical heart rejoiced in the College choir, to whose journeys abroad he and Mme Barrère contributed a fund. He recognised the advantage of the Fellowship as a set of immensely clever experts in many disciplines, from whose society you can always learn something valuable that comes from guite out of your range. And, of course, he made good and fast friends. But Barrère was a seeker after the rainbow's end of a community of intellectuals; and whether that be anywhere it is certainly not chez nous: he discovered to his disillusionment that his fellow-Fellows were mostly not such, not a bit like a cohort of those marvellous normaliens, and that the tone of the Fellowship was even in some ways rather philistine. The things the Fellows could decide to do to their beloved College, and the awful objects the could choose to surround themselves with, sometimes got him in a rage. And the unedifying truth is that Barrère's explosions were rather looked forward to at meetings of the Governing Body because in a state of angry incoherence he approximated - asymptotically, be it understood - to Hercule Poirot. Actually, he gained an ironic satisfaction from donning the mantle of the uncomprehending outsider.

That insidest of all groups within the Fellowship, The Book Club, took Barrère to its midst, not just in the hope that he would thereby recognise himself as the insider he really was after all, but out of affection for him and because he could be a delightful companion. But Barrère was rather more single-mindedly devoted to *belles-lettres* than the Club was, and rather less devoted to wine; not even there lay the rainbow's end, and when he retired he used the quite just plea of intended frequent absences from Cambridge to motivate his resignation.

One thing that his colleagues decided to do incurred Barrère's total opposition: the admission of women. That was stubborn traditionalism, if you like, and he was not quite alone. But it points towards a deeper level of the man than we have yet reached, another stubborn traditionalism. Barrère's unshakable religious commitment is implicit in a lot of his literary work; it is explicit in his 1975 essay 'Ma Mère qui boîte', for the 'limping one' is Mother Church. He shared with his wife devotion to Tridentine Roman Catholicism, and saw Vatican II as a betrayal and the proscription of the traditional liturgy as

persecution. His dismay at the capitulation, as he saw it, of his Church increasingly coloured his thoughts: a pity and a paradox, for causes for satisfaction were lately beginning to accrue, recognition as an authority, in France and elsewhere; reissue as a standard work in 1984 of his *Hugo, l'homme et l'oeuvre*; sumptuous publication in the same year, in two volumes, of four of the big lyric cycles of Hugo with Barrère's introductions and commentaries and illustrations by Michel Ciry; and the *Grand Prix de la Critique poétique* of the *Société des Poètes français* for 1985. Yet he sensed his writing inhibited, and canvases lay at home untouched. The massive heart-attack that destroyed him on 16 October 1985, in his 71st year, may have saved him from deeper shadows; for it was that Mother Church to which he was devoted that had been his inspiration:

'... j'ordonne que pour l'amour de moi vous n'aimiez que le Beau; je suis l'Ange gardien, la Muse et la Madone!'

John Crook

PAUL DIRAC

The use of first names was not as common in the 1920s as it is now and in what follows I use surnames in writing of my contemporaries.

From Dirac's own Recollections of an Exciting Era at Varenna in 1972 we learn that when he came to Cambridge in 1922 his 'main interest was on the geometrical side, and especially in relativity'. He had thought that Ebenezer Cunningham might be his supervisor and that was perhaps why he came to St John's. I think another reason was that H.R. Hasse, Professor of Mathematics at Bristol, had been a Fellow. As it turned out Cunningham did not want any more research students and R.H. Fowler was appointed; he was supervisor to nearly all research students in Theoretical Physics, including myself: when I became one in 1925 Dirac was already established.

The first time I heard him lecture was when he gave an account of a pioneering paper by Max Born on atomic collisions; this was at a Colloquium in the Cavendish Laboratory in 1926. In the Easter Term he gave a course of lectures on his own work in what is now the Reading Room of the Library. These were completely characteristic in style; when I read anything by him I hear him saying it and a number of people have told me that they have the same experience. He was working on fundamental problems and his distinction was clear to all of us. We were not a sociable group. The common meeting place was the very small library in the Cavendish Laboratory in Free School Lane. The sort of algebra required was new to me and I remember showing something I had done to Dirac and being kindly and straight-forwardly corrected.

In the Lent Term 1929, my second term as an assistant lecturer at Manchester, Dirac came to give a lecture. During the afternoon his mother arrived unexpectedly to hear it. There was a dinner party afterwards at Professor



Paul Dirac

Mordell's and then I took Mrs Dirac to the station as she had to get back to Bristol that night as her husband was disabled, I think by arthritis.

Between the wars a group of physicists met once or twice a term in the Royal Society's rooms in Burlington House. Membership was by election and for a time all male, but when I was at Imperial College in 1932–3 Sydney Chapman took me along as a guest. At the summer meeting of 1933 guests withdrew while new members were elected and when I returned Dirac, sitting characteristically near the back, turned round and said, 'We've made you a member'. This gave me very much pleasure. Afterwards some of us went to Stewart's for tea and I discovered that Dirac liked his tea weaker than anyone I had known before, or indeed have known since.

The stories told of Dirac all show a simple directness and honesty. I have a rather odd one. We were going to Russia in 1958 and as I knew he had been there much earlier I mentioned this to him and said that I was not sure that I liked caviar; I was taken aback when he replied that there was not much point in going to Russia if one didn't like caviar. I have been told that one night at the B.A. table Cockcroft said, 'Do you consider yourself an educated man, Dirac?' This was said at the soup stage. Dirac was silent till the end of the meal and then said, 'No, I don't know Latin'.

Bertha Jeffreys

Paul Dirac, who had been a Fellow of St John's since 1927 and Lucasian Professor of Mathematics from 1932 to 1969, died on 20 October 1984 in Tallahassee, Florida. One of the founders of quantum theory and the author of

many of its most important subsequent developments, he is numbered, alongside Newton, Maxwell, Einstein and Rutherford, as one of the greatest physicists of all time.

He was born in Bristol on 8 August 1902, the second of the three children of Charles Adrien Ladislas Dirac and Florence Hannah Dirac (nee Holten). He had an elder brother and a younger sister. Dirac's father was Swiss by birth, his family coming from Monthey in the Canton of Valais, but he had run away to England after an unhappy childhood, marrying and settling in Bristol. Eventually he became Head of Modern Languages at the Merchant Venturers' School, where Paul Dirac received his secondary education from 1914 to 1918. The young Dirac was required always to converse with his father in French, for the purpose of improving his proficiency, and he would remain silent unless he could express himself well in the language. This no doubt contributed to the taciturnity and thrift with words for which he was later famous.

The curriculum at the Merchant Venturers' School concentrated on mathematics, physics, chemistry and modern languages. Latin, which was required for matriculation at Cambridge and Oxford, would have to be taken as an extra subject by candidates for admission to those Universities. Most of Dirac's contemporaries going on to university did so in their home town, and Dirac followed in his brother's footsteps in 1918 by entering Bristol University to read engineering.

Dirac's progress through his secondary school had been more rapid than normal, his passage perhaps being facilitated by the gaps left in the higher classes by those who had gone to do war work. His knowledge of mathematics was in advance of the rest of his class as the result of his own reading. Already he was primarily motivated by a desire to understand the physical world. Thus he did not respond to the suggestion of one of his teachers that he would probably be interested in non-Euclidean geometry because it seemed obvious to him that the real world was based on Euclidean geometry. Ironically, at the same time he was trying to understand the mathematical relationship between space and time which, a few years earlier, Einstein's Special Theory of Relativity had shown to be described precisely in such terms.

In his engineering course, Dirac concentrated on the theoretical aspects. His experimental work was not always very successful and he received an unfavourable report when he spent part of the Long Vacation of 1920 at the British Thompson-Houston works in Rugby to gain practical experience. When he graduated in 1921, the country was in an economic depression; even with a B.Sc. with First Class honours in electrical engineering he could not get a job. His father encouraged him to continue with his studies and, to this end, he sat for an Exhibition at St John's in June 1921, the competition for Open Scholarships already having taken place. The award, worth £70 per annum, to which he was elected, was not sufficient to support him in Cambridge, so he remained in Bristol, where the University allowed him to take the last two years of the honours course in mathematics, exempting him from fees.

Dirac never regretted the time he had spent learning engineering. He

believed it had taught him to tolerate approximations, that all equations describing the actual world are only approximate, even though the approximation gets better with successive theories, and that even approximate equations can be beautiful. It helped him in more direct ways; for example, his dissatisfaction at the lack of a unified way of treating distributed and concentrated loads was one of the influences that led him to introduce his famous delta function some years later.

Applied mathematics was taught in Bristol by the head of the department, Professor Henry Hasse, who had been a Fellow of St John's; and Peter Fraser, a gifted teacher who never published any of his own research, lectured on pure mathematics. Fraser had a profound influence on Dirac, particularly through his teaching of projective geometry. Such geometrical ideas underlay much of Dirac's research even though he published the results in other terms, which he thought would be more accessible to most physicists. There was only one other student taking the honours mathematics course in Dirac's year, Beryl Dent, who later did research on atomic physics in Bristol. When it came to specialising in the final year, she was determined to do applied mathematics and, as the department did not wish to put on separate lectures for the two students, Dirac did the same. In 1923 he obtained First Class honours in mathematics and a maintenance grant from the Department of Scientific and Industrial Research (precursor of the present S.E.R.C.) to enable him to do research.

When he came up to St John's in 1923, Dirac hoped to do research in relativity under the supervision of Ebenezer Cunningham, who had examined him for his Exhibition two years earlier and who, as a Tutor, had admitted him to the College. Cunningham had pioneered the introducton of the theory of relativity into Britain and Dirac was aware of his work through his book The Principle of Relativity (C.U.P., 1914). But, since Cunningham was near the end of his research career and not inclined to take on any students, he was passed on to R. H. Fowler, Fellow of Trinity College and later Plummer Professor of Mathematical Physics. Instead of beginning research on geometrical aspects of relativity, Dirac was introduced by Fowler to atomic physics, in the form that it had been developed in the previous twenty years by Rutherford, Bohr and others. This was an eye-opener for him because previously he had regarded atoms as very hypothetical objects and it came as a great suprise that the equations of classical electrodynamics, with which he was familiar, could be used to analyse the structure of the atom. Very quickly he was plunged into the most profound problems of atomic physics, which was then in an incomplete and paradoxical state.

Whilst devoting most of his time to these problems, Dirac did not completely abandon his interests in relativity and geometry. Discussions with A.S. Eddington led to his publishing a short paper on relativity in the *Philosophical Magazine*. On Saturday afternoons he attended the tea parties held by H. F. Baker, Lowndean Professor and Fellow of St John's, at which talks were given on Projective geometry. It was at such a party and on such a subject that Dirac gave his first lecture.

Amongst the meetings then held to discuss current research in physics were

those of the Kapitza Club, which had been founded in 1922 by Peter Kapitza, a Russian also trained as an electrical engineer, who had come to the Cavendish Laboratory a year earlier to work with Rutherford. It met after dinner, an arrangement which Dirac found inconvenient because, by that time of day, he was usually very sleepy. He believed his brain power to be at its maximum in the mornings and that is when he did most of his work. On 28 July 1925 the Club was visited by Werner Heisenberg of Gottingen, who spoke on 'Term Zoology and Zeeman Botany'. Towards the end of his talk he described some new ideas of his, which later turned out to be the origins of his formulation of quantum mechanics. By this stage, Dirac was too exhausted to take anything in. However, Fowler appreciated the potential importance of Heisenberg's remarks and, at the end of August, Heisenberg sent him the proofs of his first paper on the new mechanics. Fowler sent them on to Dirac, who was visiting his parents in Bristol, with the query 'What do you think of this?'.

Heisenberg's approach had been to build up a theory entirely in terms of observable quantities, and the observable quantities in atomic theory were mostly concerned with two states of an atom. In this way, Heisenberg was led to associate two-dimensional arrays with observable quantities, and to develop an algebra of such arrays based on physical motivation, without realising that he was re-inventing the algebra of matrices already known to pure mathematicians. The most striking feature of this algebra is that it is non-commutative, that is u times v is not equal to v times u. At first this seemed very strange in a physical theory. It bothered Dirac, and he continued to think about it when he returned to Cambridge for the Michaelmas Term. He resumed his previous style of life, thinking intensely about such problems during the week and relaxing on Sunday by going for long walks in the country alone.

On one of these Sunday walks in October 1925, in spite of his intention to relax, he was thinking about the non-commutativity in Heisenberg's algebra, the difference uv – vu, when he suddenly realised the connection between this and a quantity in classical mechanics called the Poisson bracket. Excited, but unable to decide whether there was anything in the idea, he hurried back to his lodgings. His notes and textbooks contained nothing on Poisson brackets and, being Sunday, the libraries were shut. He spent an anxious night waiting, but with his confidence gradually growing, until the libraries opened and he was able to verify that the analogy was perfect.

The resulting paper, 'The Fundamental Equations of Quantum Mechanics', was received by the Proceedings of the Royal Society on 7 November 1925. Although Dirac had been doing research for little more than two years, it was his eighth paper. (In contrast to what is sometimes supposed, Dirac published more than a hundred papers altogether.) In it he solved the central problems of atomic theory which had been baffling theoretical physicists for the previous decade. He established the basic equations of quantum theory and explained their relation to classical mechanics. In Gottingen, Born, Heisenberg and Jordan published two papers doing the former, but the elegant and profound relation with classical mechanics through Poisson brackets was Dirac's alone, and it remains the basis for understanding the relationship between classical and quantum mechanics. Heisenberg regarded the lack of commutativity in his

theory as a defect until he saw from Dirac's work that it was a central feature of quantum mechanics. Dirac said in later years that nothing had ever given him as much satisfaction as this first major discovery.

Dirac developed his approach to quantum mechanics further, submitting papers in January and March 1926, and corresponding with Heisenberg about his progress. In the spring he wrote his doctoral thesis and he was admitted to the Ph.D. degree in June. He was now supported by an 1851 Exhibition Senior Research Studentship which he had been awarded in 1925. About this time a paper by Erwin Schrodinger appeared giving an apparently completely different version of quantum mechanics, 'wave mechanics', couched in mathematics more familiar to many physicists. At first Dirac's reaction was hostile but by August he had mastered Schrodinger's formalism and, studying its consequences for indistinguishable electrons, he gave a derivation of Pauli's exclusion principle and the consequent 'Fermi-Dirac statistics'. In his next paper, submitted in December 1926 and arguably his greatest, he established the general mathematical framework in which quantum mechanics is now formulated. Within this framework, the distinctions between the Heisenberg and Schrodinger approaches disappear; they are just different choices of systems of coordinates.

Having obtained his doctorate, Dirac was free to travel and, in September 1926, he went to Copenhagen to visit Niels Bohr's institute, moving on in February to spend several months in Gottingen. He continued his habit of working hard through the week and going for long country walks on Sundays in order to relax, but these walks were no longer usually solitary. In Copenhagen he was often accompanied by Bohr and in Gottingen by Robert Oppenheimer, who lived in the same pension and with whom he became close friends. Dirac found the catholic interests of Oppenheimer, who spent much time reading Dante in the original, very difficult to understand. It is said that Dirac once asked him, 'How can you do both physics and poetry? In physics we try to explain in simple terms something that nobody knew before. In poetry it is the exact opposite.'

Whilst in Copenhagen, Dirac applied his general formalism to the electromagnetic field, showing it to be described in quantum-mechanical terms by an assembly of particles (photons), just as had been conjectured by Planck and Einstein in the work which had motivated much of the development of quantum mechanics. In so doing, he brought together the various strands in the development of the subject into a coherent whole, removing once and for all the dichotomy between waves and particles, and simultaneously he created the subject of quantum electrodynamics. Having returned to Cambridge, Dirac was elected to a Research Fellowship at St John's in November 1927.

At the end of 1927, the major outstanding problem was how to reconcile quantum mechanics with the other revolution in physics that had been made at the beginning of the twentieth century, relativity. Many thought that this problem had already been solved but Dirac saw clearly that the supposed solution was unsatisfactory. In 1928, in two papers that are probably his most famous, he produced his relativistic quantum theory of the electron by constructing what came to be known universally as the 'Dirac equation' (except in Dirac's lectures, where it was always called the 'relativistic wave equation'). It made the previous candidate theory look thoroughly anaemic. Dirac's theory required the electron to have very definite properties (spin and magnetic moment), in agreement with experiment. Moreover, as Dirac pointed out in 1930, it necessitated the existence of another particle with the opposite electric charge and the same mass as the electron. In this way, it predicted the existence of the positron, the anti-particle of the electron, which was confirmed by experiment in 1932. Dirac's prediction of antimatter was described by Heisenberg as 'the most decisive discovery in connection with the properties or the nature of elementary particles... [It] changed our whole outlook on atomic physics completely'.

With these developments, quantum mechanics was in an essentially complete form. Dirac's enormous contributions to it were acknowledged by his election to the Royal Society in 1930 and to the Lucasian Professorship in 1932, and by the award of the Nobel Prize for Physics for 1933, which he shared with Schrodinger.

Dirac had been lecturing on quantum mechanics since 1927. (He was a University Lecturer in Mathematics from 1929 to 1932.) Out of these lectures grew his book *The Principles of Quantum Mechanics* (O.U.P., 1930), which for over fifty years has remained a standard text to be recommended to those learning the subject. It is a testimony to the clarity of his vision and the depth of his perception that he was able to write the definitive text on the subject so soon after possibly the greatest conceptual revolution in physics had taken place. J. G. Crowther, representing the O.U.P., visited Dirac in College and found him sitting at a folding wooden desk 'writing the book straight off'. The manuscript, largely free from corrections, now in the Churchill College Archive Centre along with many of Dirac's other manuscripts and personal papers, confirms the picture. For some years Schrodinger's methods were dominant but, gradually, particularly after the notational advances made in the third edition (1947), Dirac's more general formulation became accepted as the standard language of quantum theory.

Dirac continued to lecture on quantum theory in Cambridge until his retirement from the Lucasian Chair in 1969. He supervised comparatively few research students, taking the view that the fundamental problems on which he worked were not suited for most students. For many years, his was the first course in quantum theory that a Cambridge student would take. His presentation followed very closely the treatment in his book but, even so, many would attend the course more than once. His delivery conveyed an integrity and coherence of viewpoint which made the line of argument seem inevitable.

The brevity and precision of his comments were legendary, leading to many 'Dirac stories', some apocryphal no doubt. One of the most famous recounts how, after Dirac had given a lecture, a member of the audience stood up and said that he could not understand a particular equation. After a long silence, the chairman asked Dirac whether he was going to answer the question. Dirac

replied that he had thought it had been a statement. Another story tells how the physicist Paul Ehrenfest, experiencing some difficulties in following the argument in one of Dirac's papers, wrote to him for further explanation. He received a long reply which, on examination, turned out to be essentially the same as the text of the paper. But, after further study, Ehrenfest concluded that 'The better one understands it, the better it is'. Rereading Dirac's succinct and carefully constructed arguments frequently revealed depths of meaning initially overlooked.

If Dirac had done nothing after the early 1930s, he would still be ranked amongst the greatest names in physics, but his work continued unabated in his later years. The first years of his research career were in a golden age in physics, which he played a major part in creating. His later achievements were not on the same scale but neither were those of other physicists. In the following years he worked on a number of topics, writing many papers of great originality. His work on the possible existence of magnetic monopoles contained the seed of the topological ideas that now play a major role in theoretical physics. The significance of this and much of his other work, such as his approach to constraints in classical mechanics, has grown with the years, and his influence is now as great as ever. On the other hand, Dirac was out of sympathy with the subsequent development of quantum electrodynamics and, in particular, the use of 'renormalisation' to remove infinities from calculations. He took the view that infinities would not occur in a satisfactory theory, and, as on so many other questions, opinion has been shifting towards his point of view.

The image of Dirac as a theoretician, not interested in the practical aspects of physics, is not really accurate. About 1934 he invented a method of isotope separation, based on the idea that if a jet of gas were made to turn a sharp corner, past a sharp edge, the centrifugal force would cause the components to separate. With Kapitza's help and encouragement, he set out to test the method experimentally in the Mond Laboratory. When, on a visit to Moscow, Kapitza was prevented from returning to Cambridge, Dirac's experiment was interrupted because the equipment in the Mond Laboratory was sent on to Moscow. Later on, in the war, a group in Oxford found that the method worked perfectly well for separating uranium hexafluoride but, as it was less efficient than gaseous diffusion, it was abandoned.

His work did not stop on his retirement from the Lucasian Chair. In 1971 he accepted an appointment as Professor of Physics at Florida State University in Tallahassee. There, having Dirac in the physics department seemed comparable with having Shakespeare in the English department. He continued to work, until shortly before his death, on his theory that the fundamental physical 'constants' are actually varying very slowly.

In 1937 Dirac married Margit Wigner of Budapest (whose brother, Eugene Wigner was awarded the 1963 Nobel Prize for Physics). He was awarded the Royal Medal of the Royal Society in 1939 and its Copley Medal in 1952. The same year he became the third recipient of the German Physical Society's Max Planck Medal, after Planck himself and Einstein. In 1961 he was made a member of the Pontifical Academy and in 1973 a member of the Order of Merit.



The College is fortunate in having three likenesses of Dirac in its possession. The first dates from 1939, when the Danish sculptor, Harald Isenstein, made a plaster cast bust which he later presented to the College. His offer in 1971 to have the bust cast in bronze was welcomed by the College and the result is now in the Library. The second is a pencil drawing made by R. Tollast in 1963. The third, a portrait in oils painted by Michael Noakes in 1978, now hangs in the Hall.

Dirac's unique intellect was evident in everything he wrote. Rudolf Peierls suggested that it was Dirac's absolutely straight thinking in unexpected ways that made his work so characteristic. He did not follow conventions but rather thought everything out from first principles. Bohr said that he had the most remarkable scientific mind since Newton. Dirac himself cited mathematical beauty as the ultimate criterion for selecting the way forward in theoretical physics. He wrote that 'it is more important to have beauty in one's equations than to have them fit experiment... It seems that, if one is working from the point of view of getting beauty in one's equations, and if one has really sound insight, one is on a sure line of progress. If there is not complete agreement between the results of one's work and experiment, one should not allow oneself to be too discouraged, because the discrepancy may be due to minor features... that will get cleared up with further developments of the theory'. Dirac was writing about Schrodinger, but it was his own work that demonstrated just how powerful such an approach could be when adopted by someone possessing the deepest insight and the highest aesthetic sense.

P. Goddard

Paul Dirac and I were elected Research Fellows on the same day, 7 November 1927, he on the evidence already of high scientific achievement. I knew him continuously from that date. He was not an easy man to know intimately and I cannot claim an intimate acquaintance in the closer personal sense. Though he took little part in College affairs, his affection for the College and his gratitude to it were never in doubt. Until his retirement from the Lucasian chair he dined regularly, if not very frequently, in Hall. He spoke little, and often sat silent. His interventions most often took the form of brief comments on what was being said, or brief questions. Sometimes he would ask childlike (never childish) questions about some current or practical matter with which his hearers might have expected him to be familiar. At other times he would disarm him with a direct and penetrating question which left his hearer at a loss to find an answer to match the question. But his questions always had a clarity that revealed a desire to know; there was never any trace of embarrassment at asking them or of desire to confound or uncover ignorance in others. Indeed, the impression always and immediately created by his conversation, brief though it might be, was of a directness and penetration of mind, of that clarity and innocency of sight which underlies both personal virtue and high intellectual illumination. J.S. Boys Smith



Bob Fuller's funeral procession, 14 April 1986

ROBERT CHARLES FULLER

Bob Fuller, Head Porter of St John's from 1969 to 1985, died at home on 6 April 1986.

Robert Charles Fuller, universally known as 'Big Bob' ('the Beast of St John's, though taken up by the national press, had no real local following) was born in 1920 at Swaffham Prior and started work on a local farm at the age of fourteen. After six years of war service with the Grenadiers he joined the College staff under R.E. Thoday, Head Gardener, in September 1946. He remained at St John's, moving from the Kitchen Garden to the Porters Lodge in 1960, until his retirement last summer. 'I enjoyed a Porter's life; it was like being a Lance-Corporal in the Army again', the former Sergeant Major recalled in the recollections published in *The Eagle* twelve months ago.

Those recollections (q.v.) provide a more authentic account of Bob than any obituarist could do. The concern for precise dates, the staccato sytle, the eloquence of what is left unsaid: these reveal something of the man who in his sixteen years as Head Porter came to represent to the wider world a rapidly changing St John's whose virtues he massively personified. On his death the *Cambridge Evening News* reported that he had been Head Porter for 39 years. Though factually incorrect (and it would have provided Bob with his cue to comment on the ruddy newspapers), this was symbolically right, for in every week of the year Bob gave the College at least twice as much of his time and himself as the College had any claim on. He seemed hardly ever to be away from the place, whether in his office at the Main Lodge first thing in the morning

scrutinising lists of conference delegates or – what was more congenial to him – passing the time of day will all and sundry in the courts; on the touchline or the towpath; crouched in that imminently explosive cricket-umpiring posture of his; showing tired cricketers, historians, oarsmen the way to go home at the end of the long day, he was rarely out of view. He was devoted to the College and grumbled about it occasionally in the way that only one who identified as he did with the achievements, antics and exploits of staff, Fellows and students could grumble. More often he delighted in some further proof that 'John's is the best bloody College'. 'Lovely!', he would say – and he meant it. A ready raconteur (a brilliant extempore account to the Pig Club of his days with Ralph Thoday, to whom the ex-RSM remained 'the boy', springs to mind), he particularly relished the camaraderie of Old Johnian weekends.

If the College seemed like his home, when he did go home he as often as not took the College with him, especially at Christmas and the New Yearwhen Mary and Bob regularly entertained graduates and undergraduates who were far from their own homes. In the mid-70s he was elected an Eagle. 'That tie means a lot to me', he wrote at the time of his retirement, 'I hope I can go on wearing it for a few more years.' He had richly deserved to do so and, tieless, to continue cultivating the garden at 12 Madingley Road which he had somehow always found time to keep in such splendid order. The College's deepest sympathy goes to Mrs Fuller that those 'few more years' turned out to be just a matter of months. It was Mary's unselfishness that enabled Bob to give so much of himself to the College and to place the College so deeply in his debt.

Peter Linehan

This is the first time that I have been asked to write an obituary. I daresay it will not be the last, but I am sure it will be the one I remember most, and I cannot envisage finding it as hard to know where to start. Bob Fuller was so much to so many people, both in St John's and throughout Cambridge that any brief mention of his achievements can only but appear as an injustice. 'Big Bob Remembers', which appeared in last year's *Eagle*, straight from the Horse's, or should I say Cuddly Teddy Bear's, mouth, testifies to Bob's total involvement in College and University life. It is both ironic and sad that his poignant memories should assume the mantle of an autobiographic obituary so soon after his retirement.

All I will proffer are a few personal memories. Memories of stewarding with Bob at the Varsity Boxing Match, the Guildhall filled to capacity. 'Sorry Sir, completely full' was the order of the day, delivered with military precision, but still room to slip the odd Johnian (or two!) through the doors. Of umpiring a soporific cricket match, only to have the calm shattered by the rasping condemnation of 'No Ball' from Bob, or watching with wry inevitability the enactment of a time-honoured ritual, much beloved by Johnian bowlers. I often wonder why we even bothered to appeal. The finger would be rising, head thrown back in haughty disdain, well before the first murmurs of an appeal were heard. Of being called in as a 'twelfth man' for the annual Cricket Club Dinner at Bob and Mary's, having already indulged in the College Buttery. I ended up retreating to the role of waiter as my fellow diners battled against the odds to finish the 32 pound turkey.

I also count myself lucky to have been one of the few Johnians to have seen Bob Fuller speechless! Generations of Johnians will recall marathon welcoming speeches at Matriculation Dinners as Bob sought to welcome freshmen (and women) and imbue them with a flavour of College life. But we got the better of him in the end. At a farewell Dinner in Bob's last term as Head Porter, a twominute standing ovation as he entered Hall with Mary had Bob visibly shaken, but one soon sensed that he was gathering himself for his last oration to his beloved students. However, as he rose to his feet and turned to take centrestage, he was confronted by the only thing ever likely to have had enough presence to render him speechless: a life-size photograph of himself in full morning dress, his leaving present from the junior members. The pause was only momentary, but his recollections were uncharacteristically brief, and he sat down with more than a trace of dampness in his eyes. He wasn't the only one either

An era is well and truly over. It is sad, and more than a little unfair, that Bob and Mary will not be able to enjoy together the retirement that they so richly deserved; sad, too, that he will not be able to indulge in a few more eccentric umpiring decisions, (Cricket Cuppers Final somehow seems one step further away this year) though I fancy Bob will be casting his eye over the next game of room cricket, whenever that might be! As Bob himself remarked in last year's *Eagle*, his cousin made the new Forecourt gates, and he thus felt that he had left a small part of his family life in the College. A masterly understatement if ever there was one. Bob and Mary have given so much to the College over the years that their influence will be felt for many years in innumerable ways. Bob would not want us to sit back and lament for too long. The College was what mattered most to him, and the most fitting tribute to a man such as Bob can only be to get on with the job in hand and maintain the standards of excellence in the College which were so lovingly fostered by one of the last of Cambridge's truly wise men.

Rob Heginbotham

'Well, he'll probably say something about rules being made to be bent, and about the fact that he's been bathed in champagne and rolled in the snow', said some second-year to me the day before my first-year Matriculation Dinner. He was of course referring to Bob Fuller's notorious annual speech. 'Oh yes,' he added, 'he doesn't like girls'.

I never really experienced any of Bob's chauvinism first hand. I do, however, remember the expression on the late Head Porter's face when I dashed into the lodge at the beginning of one Michaelmas Term complaining that my room had round pin plugs. 'I'm going to have to alter all my appliances!' I shrieked, 'and what's more, I wanted to use my hair dryer tonight.' My mother then rushed in to complain that girls have to run across courtyards to take a bath. 'Frances is very prone to colds' she explained. It wouldn't demand too great a stretch of

the imagination to guess the kind of response we got from Bob.

But even if Bob tried his best to make the Johniennes feel uncomfortable, we soon began to take his jibes with a pinch of salt. Some would say he became positively nervous when Caroline Bulloch went into the lodge! When I told a few of my girlfriends I had been asked to write this obituary, even such adjectives as 'cuddly' were suggested. And I think the number of girls present at his funeral is evidence enough, that despite his attempts to dislike us, most of us ended up liking and respecting him.

When, after the funeral, I commented to one of the porters how smart they were all looking in their top hats, the response was: 'I think Bob would have been proud. He was one of a kind. You don't get his sort any more.' I think that sums it all up.

Frances Moyle

Bob and Mary Fuller used to arrive for Evensong in Chapel at 6.10 p.m. on Sunday evenings. At 6.10 p.m. on Sunday, 13 April, Bob's coffin was placed in the Chapel of his beloved College to rest overnight before his funeral. Some six hundred persons packed the Chapel for the funeral service at noon on 14 April. If the date had fallen in term time, there would have been at least four hundred more. The Dean (Mr Macintosh) conducted the service and said a few words; Dr R.N. Perham, President (in the Master's unavoidable absence) read the lesson. The Choir (including as many choral students who could be present out of term) sang under the direction of Andrew Carwood, and Mr Paul Bryan (of the College School) was at the organ.

Following the service, the Head Porter (Mr Dove) and all the Porters acting as Pall Bearers, slow-marched the coffin to the Great Gate. At the Gate, an undergraduate guard of honour (led by R.C. Heginbotham and Miss D.A. Lindsay) stood at attention as the coffin passed by. For Bob's last journey to the Crematorium, the hearse proceeded south down St John's Street accompanied by a motor cycle escort provided *ad hominem* by the City Police. Many shopkeepers stood at attention as the coffin passed, and the College flag flew at halfmast. A big farewell to a big man.

A.A. Macintosh

WARWICK ALEXANDER MCKEAN

Warwick McKean was elected to a Teaching Fellowship in Law in 1976. He came to us from King's College, London, where he had held a tenured Lectureship; and some might have thought it unusual if not positively rash to relinquish the latter for a College Fellowship with limited tenure. Warwick was strongly attracted, however, to the collegiate life, and he certainly made a vigorous contribution to it.

As a lawyer he was interested primarily in the field of Public Law, and he



Warwick McKean

published a very successful book on Equality and Discrimination under International Law, which was based on his research at Oxford. It received favourable reviews, sold very well and subsequently re-appeared in paperback. Latterly he had been working on the question of legal representation with a view to bringing out what would no doubt have been a fascinating book on this subject. In addition he contributed each year the chapter on 'Law in the United Kingdom' for the Annual Register of World Events (a Longmans publication of considerable antiquity).

Although it was Public Law which attracted him most, Warwick was happy to supervise as well – and very successfully – in a number of Private Law subjects such as Tort, Equity and Land Law. His contribution to the College's teaching strength in Law was thus considerable and he will be missed.

J.C. Hall

Warwick McKean's contributions to the wider life of the College were largely in the social sphere. As a young bachelor Fellow he used his position to entertain generously and to make a large number of deep friendships. He enjoyed hugely the company of young people as well as the society of the Fellowship. He dined frequently and was punctilious in his attendance at a number of societies composed of Fellows and Undergraduates. In all this he was much influenced by the late Dr Norman Henry to whom, after a famous slip *in vino*, he was always affectionately known as'Warridge'. In association with his avuncular senior, he did much to consolidate the success of the Wine and Food Society and to perpetuate that love of the brethren so firmly associated with the 'boozy corner' of the Wine Circle. Since about 1979, there was born in Warwick a vocation to the ordained ministry of the Church of which previously he had always been a practising member. Accordingly he enrolled as a part time student at Ridley Hall and attended lectures and courses there in preparation for ordination. At the time he was not sure whether he wished to exercise a ministry in this country (and possibly in association with a teaching post), or in his native New Zealand.

Tragedy struck in 1980 when it was discovered that he had a melanoma in the leg. From this moment W.M. knew that his days were numbered and yet with quite extraordinary bravery he resolved to continue the course that he had set himself. Operations, radio- and chemo-therapy followed inexorably, but Warwick never once complained nor failed to shew that ultimate courtesy which does not inflict personal misery on others. It was, in the words of his physician, himself a distinguished Fellow of the College, a 'singular privilege to look after so brave a patient'.

Warwick was made deacon in Ely Cathedral at the Michaelmas ordination of 1984 and began to serve his title as a Fellow of the College. In addition to his teaching duties, he took a full part in the worship of the Chapel, both singing evensong and taking his turn at preaching for the early Communion services. His sermons were marked by humour and common sense as well as by insight.

By November 1984, the cancer was found to have established itself on the brain and Warwick McKean returned forthwith to his family in New Zealand. There, as a last radical attempt to ameliorate the situation, he was operated on and *mirabile dictu* given a reprieve. Just before the operation, and in view of the circumstances, he was ordained to the priesthood in St John's (happily) Cathedral, Napier by the Bishop of Waiapu on letters dimissory from the Bishop of Ely.

To everybody's surprise and delight, Warwick was able to return to the College for the Easter Term 1985, the last of his tenure as a Fellow. Again, though now very considerably weakened by the ravages of his illness, he went about his business with quiet dignity and gentle humour, enjoying particularly the view of the backs in May from his rooms in New Court. He was well enough to preach the last sermon of the academic year at Evensong in June 1985.* It was a memorable and moving occasion. Thereafter Warwick returned to New Zealand and to a post at St John's Cathedral, Napier. Within three months he had graciously conceded defeat and he died on September13, 1985, aged 44. His patience was an example to us all and his defeat was a triumph.

A.A. Macintosh

* Copies of Warwick McKean's last sermon may be obtained from the Chapel Clerk on request.

Obituaries of Frank Leonard Engledow, who died on 3 July 1985, and of Robert Leslie Howland, who died on 7 March 1986, will appear in next year's issue of The Eagle.

OBITUARIES

GLYN EDMUND DANIEL

Glyn Daniel, son of the headmaster of a village school in the Vale of Glamorgan, came up to St John's College in 1932 to read Geography. He chose the College himself after walking round the Backs. He came from Barry County School, like others of that time blessed with masters of character, intelligence, and a concern for their bright pupils. Glyn was the first of his generation to venture so far east as Cambridge; but he was followed to St John's from the same school by at least four near-contemporaries, all of whom made careers of distinction in academic or public life. It may have been his headmaster who implanted in young Daniel an interest in archaeological remains; at any rate he shifted to the Arch. and Anth. Tripos and by the outbreak of War he was a Research Fellow of St John's, and a rising authority on the megaliths of England, Wales and Brittany. His fortunate star took him into the photographic intelligence branch of the RAF and to India where he held an important command, found Ruth and developed his archaeological techniques.

He was back in Cambridge and at St John's by 1946. His achievements since then are well enough known: his professional career first in Cambridge, then nationally and internationally: Lecturer and then Disney Professor, an important Fellow of the Society of Antiquaries and belatedly a Fellow of the British Academy, and international recognition represented formally by his Fellowship of the Royal Danish Academy of Sciences and corresponding membership of major archaeological academies. He emerged, as has been authoritatively said, one of the founding fathers of modern archaeology. He was not only a true professional in an exacting and ever more technical discipline; in an age of specialisms, he was, as a friend wrote recently, 'one of the great generalists, who saw archaeology encompassing the classical, the pre-Colombian and the prehistoric in an holistic discipline'. Further, he showed his colleagues that their discipline was mature and confident enough to look back on its own development: a pioneer of archaeological historiography.

His achievement owed much to his individual temperament. He was blessed with a capacious and accurate memory: more important, he was a born and compulsive writer, of immense energy and fluency. One had the impression that hardly a morning went by, and he rose very early, without his exercising the discipline of the written word. The results are a memorial to him in more than a score of books and monographs on widely ranging archaeological subjects written, some for the profession, some for the informed public, some for both. For in addition to his other gifts he was the prime mover in capturing the imagination of a more general public for Man's prehistoric past. He found, in Antiquity, which he and Ruth edited from 1958 until the year of his death, an instrument which he could shape for this purpose; and the style, vigour and informed reporting of his editorials and his general editing became a powerful influence in educating the public mind. This was reinforced by his complementary role in the series Ancient Peoples and Places, of which he edited over a hundred volumes. That highly successful publishing enterprise emerged as a result of Glyn's renowned early venture into television, Animal, Vegetable, Mineral? In those early 1950s, academics tended to look askance at the new medium; and it was characteristic of Glyn's nerve and his flair for its visual possibilities that he should embrace the opportunity and, with his colleague Sir Mortimer Wheeler, turn it to such good account for the cause of



archaeology. By this battery of devices, of which Glyn was such a master, the academic discipline of archaeology had been transformed within a short generation, into a subject, popular in the best sense, and one which has contributed so materially to the public's enhanced sense of a national heritage.

Despite his national reputation and the fame of his public persona, Glyn Daniel was never tempted to kick over his professional traces. He remained a learned and highly disciplined practitioner, as penetrating in his criticism of the second rate as he encouraged truly promising scholarship. Above all, he remained what he had become even before the War, a don, a brilliantly individual personality but a don, in a classic mould, fierce in his devotion to Cambridge and to St John's College.

He was an outstanding teacher, both of undergraduates and of apprentice professionals. He had the gift of making topics come vibrantly alive with wit and imagination. His supervisions were stimulating and entertaining, his field trips often hilarious and adventurous. As one of his pupils, the Prince of Wales, wrote, in 1981, in the Foreword to Antiquity and Man (Glyn's Festschrift): 'There is no doubt that having him as a supervisor made archaeology - and the process of learning - fun.' He was kind and concerned about his pupils and their personal problems; and they remember the experience of supervisions in those high Third Court rooms overlooking Bachelors' Walk vividly, affectionately and with loyalty. Glyn and Ruth, in that devoted partnership spanning forty years of their marriage and professional life together, established 'The Johnian Connexion'; this periodic get together, which met for serious discussion and not-so-serious good fellowship, included in their number an impressive series of fine archaeologists who began as Glyn's students.

It is true that his colleagues and friends remember him too. He had a natural curiosity about people and an easy friendliness, especially towards the young and newly arrived who needed to be put at their ease, and his gossip was full of fun and empty of malice. His sparkling social talents: a graceful host, lively table talk, infectious laughter, a humorous improvisor of memorable situations, a celebrator of success, an inventor of private jokes, with that Celtic flair for the dramatic, all were endearing and life-enhancing qualities. Who could forget the exuberant fantasy of Daniel as Proctor perambulating in a sedan chair carried by his constables? Or being rung up on the internal College phone one morning to hear a sinister Welsh voice simply say, 'Fly at once! All is discovered.'

Some of this he owed to his friend and mentor of an earlier College generation, Martin Charlesworth. Unlike him, Glyn never took major College office, though he was at the centre of things, a member of the College Council for fifteen years, and its Secretary for seven; he had a deep concern for the College's government and was a shrewdjudge of its personalities. He made an exception for one College office: that of Steward. In the early 'fifties, with rationing over and good vintages of claret and burgundy once again to be laid down, he recreated and enhanced the role of Steward of the College with a style and panache that will long be remembered in Cambridge; and it was characteristic of him that he should harmoniously in his own person combine archaeology and French cuisine and write a book about it, just a few years before, equally for fun and *joie de vivre*, he had founded 'Fisher College' - between St John's and Trinity - as the setting for one of the earliest Cambridge detective stories.

His manifold gifts apart, perhaps the strongest and most persistent presence of Glyn's personality remains his openness to his fellow human beings, his curiosity and sensitivity about them, his unsolicited helpfulness, his warm responses, his talent for friendship. 'Friendship', he liked to say, 'is a conspiracy for pleasure.' And in this he was no respecter of persons. His concern was not just for his own students, colleagues and friends, but for all the manypeople he happened to encounter and made a point of establishing a relationship with. It was no accident that it was Glyn who adapted the statutory Pig Club of wartime permitting the Fellows to enjoy off-the-ration pork at high table into a uniquely important College sodality which embraces both Fellows and staff as members. One of many touching letters at his death was from an acquaintance who wrote that he 'was a man much loved by what I can only call the 'ordinary' people of Cambridge.

Frank Thistlethwaite

No one who was supervised by Glyn Daniel is likely to forget the stimulus of those agreeable occasions, when an essay was read aloud or returned with annotations, a glass or two of wine consumed, and a whole flow of observations offered, many of them oblique to the subject, in an atmosphere at once convivial and scholarly. One came away interested and entertained, and only later did one realise how much had been learnt. Somehow it was not merely some additional facts which had been gained but some entirely new insight into the subject of archaeology and into the personalities who had developed it or were continuing to do so.

There is no doubt that his first love in archaeology was for those megalithic monuments which he first came to know in his native Wales, and again in Brittany, on a visit to France as an undergraduate, when he saw the great alignments at Carnac for the first time. Always a francophile, and an *amateur* of the good food and wine of France as well as the archaeology, he was fascinated by the great variety of these monuments and become, in his own words 'an *aficionado* of megaliths'.

Among his earliest publications are important papers on the megalithic tombs, most

notably 'The dual nature of the megalithic colonisation of prehistoric Europe' (1941). His doctoral dissertation became, after the War, his first major book, *The Prehistoric Chamber Tombs of England and Wales* (1950), and was followed in 1960 by *The Prehistoric Chamber Tombs of France*. His major and highly readable synthesis *The Megalithic Builders of Western Europe* (1958) became a basic text for every undergraduate taking the optional Tripos paper devoted to the megalithic monuments, and formulated a balanced view which was universally accepted. As chronologies and interpretations changed with the impact of radiocarbon dating, he was quick to assess their implications, notably in his paper 'Northmen and Southmen' (1967) published in *Antiquity*.

In my view his contributions to the history of archaeology have been, and will continue to be, even more influential. With his warm interest in people (and archaeology has at times attracted some very odd people), the history of the subject came alive. It was enriched not only with anecdotes, but with a whole series of perceptions about the way archaeology has grown, many of which continue to have a bearing on how we see its developments in our own day and beyond. His first, short book, *The Three Ages: an Essay on Archaeological Method* (1943) was perhaps the first study of developments in the discipline where a key theme was singled out for examination. Previous histories of archaeology (1950) was an intellectual history first, that is to say a history of ideas, and only in a subsidiary way a description of the major excavations. This penetration in analysis is perhaps most clearly seen in *The Idea of Prehistory* (1962), which I consider to be still the best introduction to the discipline of archaeology.

These contributions have become if anything more relevant as time goes by. For one of the characteristics of the New Archaeology was to stress the need for self-awareness in archaeological reasoning, and the desirability in making explicit the many underlying assumptions. In a very real sense these works, together with *The Origins and Growth of Archaeology* (1967), led a whole generation to define its aims more clearly. So that, although he was always sceptical of what he saw as the pretensions of the New Archaeology, and inveighed against the jargon-filled prose of its exponents, he must be seen as one of the most influential figures anticipating the new developments of the 1960s and 1970s. For he was one of the first to show that all our interpretations of the past are based upon assumptions and preconceptions, which deserve to be chronicled in their own right and to be questioned.

Many other issues and topics attracted his attention, and sometimes his fire. He reexamined the problem of the origins of complex societies in his *The First Civilisations* (1968). He was fascinated by the phenomenon of frauds and forgeries and their acceptance, and returned frequently in the pages of *Antiquity* to the question of the identity of the perpetrators of the Piltdown hoax. He was an early and continuing sceptic of the supposedly palaeolithic cave paintings at Rouffignac, pointing out that the cave was well known (and had been described) before the alleged art works were 'discovered'. The famous case of the clay tablets of Glozel was never forgotten, and when the progress of archaeological science made possible thermoluminescence dates for them, he was one of the first to voice doubts at the early dates which resulted. This is a problem which remains, for the TL laboratories have not yet adequately explained how they came to obtain early dates for materials so evidently fraudulent! One of his last television programmes, made for Anglia, was 'Myth America' in which he denounced several spurious arguments for trans-Atlantic contacts. These were claims, like those for extra-terrestrial agencies and 'earth magic', which in his Presidential

Address to the Royal Anthropological Institute in 1979 he rejected as 'bullshit archaeology'.

Some of these interests are entertainingly discussed in the pages of Antiquity and in his memoirs, Some Small Harvest (1986), while others were reviewed in the Festschrift volume Antiquity and Man, Essays in Honour of Glyn Daniel, published by Thames and Hudson in 1981 on his retirement from the Disney Chair of Archaeology. All his students, along with the thousands who read Antiquity and those numerous works which he wrote and edited, as well as many of the millions who watched Animal Vegetable, Mineral? and his other television programmes, found that their interest in the past and in archaeology was quickened, and their horizons enlarged by his own broad view of his subject, by his curiosity and sense of fun, and by his infectious enthusiasm.

I cannot evoke these qualities better than with his own words, taken from that most delightful of guidebooks *The Hungry Archaeologist in France* (1963), where he described his first visit to Brittany on an undergraduate holiday in 1934:

And I remember after dinner walking down to the great Carnac alignments and in the moonlight wandering along those miles of serried, large stones, their dark shadows a reminder of their darker past and our ignorance of their makers and builders. For me that was a great and personal moment, and I know even better now: that these megalithic monuments of western Europe would exercise an irresistible fascination for me for ever ... The past was alive. It was no archaeological manifestation which specialist scholars could study and argue about. It was something real which everyone could understand or try to understand, something which was the beginning of their own cultural past in western Europe.

Colin Renfrew

FRANK LEONARD ENGLEDOW

Frank Leonard Engledow, born on 20 August 1890 in Deptford, Kent, was educated at Upland Council School, Bexley Heath, then at Deptford School and University College London before entering St John's College as an Exhibitioner in Mathematics in 1910. He found the Mathematics course too theoretical and changed to Natural Sciences after a few weeks. This move proved a success and he achieved a first in Natural Sciences in 1912 and was awarded the Slater Studentship. He entered the Diploma Course at the School of Agriculture in 1912 as a Ministry of Agriculture Scholar, to start what was to prove a highly successful career in agricultural research. At this time he came into contact with two men who were each to exert a profound influence on his future career - R.H. Biffen, a plant breeder, and G. Udney Yule, a statistician. It was they who stimulated Engledow to develop the quantitative approach to experimental methods that was to characterise much of his future research.

He had already published three papers by 1914 when the First World War interrupted his research work. He enlisted two days before hostilities started and joined the Queen's Own Royal West Kent Regiment with which he served with distinction in India and Mesopotamia. He rose to the rank of Lieutenant Colonel, was mentioned in dispatches and was decorated with the Croix de Guerre. At the end of the war he served as Director of Agriculture for Iraq for a short period. He returned to Cambridge in 1919 to continue his association with Biffen and was appointed an Assistant Director of the Plant Breeding Institute, which had been



founded seven years previously as a wing of the School of Agriculture. In November of that year Engledow became a Fellow of St John's College after submitting a thesis based on his previous research.

In the next ten years Engledow was extremely active in research on the breeding of wheat and barley, but more importantly on the analysis of the morphological and physiological basis for yield differences in these crops. In the latter connection he laid the foundations of the study of Crop Physiology and the his publications are standard works of reference in this subject.

Engledow was appointed Drapers Professor of Agriculture in 1930 and became involved with administering the School of Agriculture and its associated Research Institutes, as well as advising others on their research in this country and overseas. He was also engrossed in formulating Agricultural Policy and there was no longer any time left for his own research. He travelled widely in the Colonies and became an authority on the production of tea, cotton and rubber. This expertise was recognised by invitations from the Colonial Office to advise on new lines of research on these crops.

Because of its close association with the Colonial Territories the School of Agriculture became increasingly involved in training recruits to the Colonial Agricultural Service. Engledow took a special interest in this work and emphasised the value of a proper training in both field experimentation and the application of statistical techniques to experimental work on crops.

When the Second World War broke out it was not surprising that Engledow was called upon to advise the Government on the nation's food supply. He served on numerous important bodies and came to realise how precarious was our reliance on imported foods in the face of the challenge from submarine warfare. This experience was to dominate Engledow's thoughts on Agricultural Policy thereafter and he continued to emphasise the need to maximise the contribution of home agriculture to our food supplies. From 1945 until his retirement as Drapers Professor of Agriculture in 1957 he was faced with the gradual handing over of power in the Colonial Territories and a gradual reduction in the intake of students to the School of Agriculture. Research Institutes linked to the School of Agriculture also became independent of the School at that time. He confronted this situation realistically and when considering teaching courses he remained of the strong opinion that it was the duty of the School of Agriculture to produce responsible graduates with a broad education in general agriculture.

Engledow was a man of spartan character and strong principles. He had a great love of the countryside and felt deeply that those concerned with food production and the management of the land should remember that they had a responsibility to preserve this precious national asset. Engledow possessed a clear mind and was an excellent lecturer and teacher. He was meticulous in all that he did and always alert for new facts, new methods and new ideas. However, although a very busy man as Professor of Agriculture, he was always ready to meet students and he showed patience in dealing with their problems and difficulties. It was also a custom for undergraduates to be entertained for tea on Sundays at his home. He was also only too willing to meet farmers personally or in Discussion Groups. He was a man of high repute and recognised as such.

Engledow was a family man and lived a happy well ordered family life with his wife and four daughters at their home at Hadleigh, Huntingdon Road. He had married Mildred Emmeline Roper in 1921 and they remained together until she died shortly before his retirement in 1956. He was a practising Christian and served as a churchwarden at St Andrew's Church, Girton for 30 years. His main hobbies were gardening and carpentry.

In view of the range and excellence of his work and service it is not surprising that Engledow received many honours. The major of these were:-

1935 Companion of the Order of St Michael and St George

1944 Knight Bachelor

1946 Fellowship of the Royal Society

1948 Membership of the Council of the Royal Society.

He also served on numerous official and advisory bodies in this country and overseas.

Engledow's retirement lasted 29 years, most of these being spent living at Hadleigh. In the early years he continued his association with overseas research stations and paid last visits to Canada, Ghana, Nigeria, India and Malaysia. His work as a Trustee of the Nuffield Foundation, of which he was made a Founder Trustee in 1943, became increasingly important to him and he continued with this until 1972. From 1962 onwards he suffered increasingly from arthritis of the hip which made movement difficult and painful. After two operations, borne with typical stoicism, he was forced to enter a Nursing Home in 1980. His interest in Agricultural Policy never dwindled and he received friends and colleagues at regular intervals to put the world to right. At the age of 90 he saw published *Britain's Future in Farming*, a book that he and Leonard Amey had edited. He was planning another on World Agriculture when he died peacefully on 3 July 1985. He was buried in St Andrew's Church, Girton and a Memorial Service was held at the College Chapel on 12 October 1985.

Helpful information from Dr G.D.H. Bell (in particular), Dr J.S. Boys Smith, Mr F. Hanley and Sir Joseph Hutchinson is gratefully acknowledged.

I first met Frank Engledow in October 1923. I was one of a group of candidates for overseas service and Engledow was building up his interest in training for overseas work' which later became a major commitment of his department. This led him to travel extensively in Third world countries and he visited me in India and Trinidad. I made a point of calling on him whenever I was in England on leave.

He was a Spartan. He had strong principles which he held and practised at all times. He had a very heavy load during the war in developing British agriculture for wartime food supplies. When I took over from him the legacy of that high-pressure work remained in a tradition of close time tabling and making all appointments several days ahead.

His policy in the Faculty of Agriculture was to follow the University's practice to avoid heavy dependence on outside funding, so it came about that research activities of the Department had been developed into separate institutes, independent of the University. When I took over in 1957, there was practically no research going on and I was free to start research according to my own interests. In undergraduate teaching, he maintained a pass degree, with Honours reserved for men who had done two years in the Natural Sciences Tripos and then spent two years in the Faculty working for the Agricultural Science Diploma.

His own interests were in agricultural policy, both at home and overseas. He was a marvellous committee man. Chairmen of committees came to rely on him because he had always made himself thoroughly familiar with all the papers and could lead them through a mass of minutes in good time and show how action could be taken.

His overseas interests were primarily in tea, rubber and cotton. I was particularly concerned with cotton and he was the strongest influence in the Cotton Corporation's Scientific Committee. I always knew I could get a hearing from him whenever I needed it. He was a Nuffield trustee and, as an illustration of his abilities, there came an occasion in Uganda when a scheme of mine collapsed because the Government, for political reasons, withdrew its support. I wrote to Engledow and asked whether a request for finance from the Nuffield Trust would be favourably considered by the trustees and received back from him within a fortnight a letter saying that the trustees had voted the sum of money I had suggested. He dominated tea research and had a powerful voice in rubber research. His own Faculty of Agriculture became the major training ground for cadets to staff the Colonial Agricultural Service; indeed, the training of colonial cadets became so important a part of the Faculty's work that the handover of power in the Colonial Territories left the School of Agriculture with a greatly depleted intake of students.

In British Agriculture, Engledow's thought was dominated by his wartime work when he know what was going on in Britain's food supply industry and realised how precarious the population's food supply was in the face of a challenge from submarine warfare. Throughout his life, he was concerned to maximise the contribution of home agriculture to food supplies and to Britain's economic prosperity. His last contribution to the debate on the place of agriculture in the economy was to plan and edit a book on the subject when he was already confined to a nursing home. I remember going to see him one day with drafts of some chapters of the book in my briefcase and having to wait a little. One of the Irish sisters in the Hope Nursing Home said with a twinkle in her eye, 'Now you can go over your homework!'. I like to think of that as my last contact with him.

Joseph Hutchinson

DAVID HOWIE

David Howie died in the Alps last summer when an unexpected blizzard trapped him and his partner, James Perrett, on the upper slopes of Mont Blanc.

Those who knew him appreciated his self-discipline and his responsible attitude. He had just been elected Secretary to the College Rugby Club. Dave never spoke a false word and would not be pushed into making decisions he did not truly agree with.

His love for climbing arose not only from the pleasure he took in overcoming severe tests of stamina and courage, but also in the planning and leadership essential to success. My overriding memory is of Dave silent at the summit of a mountain, grinning from ear to ear. Nick Pilgrim

ROBERT LESLIE HOWLAND

'Bede' Howland, better known in the sporting world as 'Bonzo' and to some others as 'The Big Man', died in his eighty-first year on 7 March 1986 at his elder son Robert's house in Winchester. A former President and Senior Tutor of the College, and the last University Warden of Madingley Hall, he was also an outstanding figure in the history of British weightputting, or shot-putting, as it is now called.

Robert Leslie Howland was born at 56 Malborough Road, Watford, on 25 March 1905 to Robert Howland, a bristle merchant of Ruislip, and, his wife, Mary Helen Turner. His first school was Shirley House, Watford, for the year 1912-1913, but when his father for business reasons moved to New York he was sent to the Noble School, White Plains, N.Y., for 1913-1914. From there he went to Seafield House, Broughty Ferry, a suburb of Dundee on the Firth of Tay, to a Preparatory School owned and run by Lancelot Wilkinson, his uncle by marriage.

It was there that he acquired the nickname 'Bede', according to his cousin Patrick Wilkinson, late Vice-Provost of King's, in his book *Facets of a Life*, published posthumously by his wife Sydney Wilkinson in 1986. 'Bob Howland and his wife Mary', Wilkinson writes, 'had to be in America during the First World War, and their son came as a boarder to my father's school Seafield House ... and lived with us in the holidays. Our history book had a picture of the Venerable Bede with a long beard poring over a tome. One day my sister Violet found her cousin reading studiously and said 'Come out and play or you'll get like the Venerable Bede'; and Bede he has remained eversince to our family, hiswife, and to most of his friends and colleagues. He was two years older than I, but had the great faculty of not minding how often or how easily he won our contests. To some extent compensations were arranged. Thus when we hunted each other as savages with bamboo weapons, he had to score a direct poke with his spear whereas my arrows, deemed poisonous, killed at a touch.'

From Seafield House in 1919 Bede moved on with a scholarship to Shrewsbury School where he was a member of the soccer, cricket, and Eton fives first teams, put the shot 33 feet, was made a Praepostor, and won a Major Scholarship in Classics to the College. Arrived in Cambridge he began a brilliant academic and sportingcareer, scoring a First in the Mays (the Preliminary Examination for Part I of the Classical Tripos) in 1925, winning an Athletics half-Blue for shot-putting and joining the Hawks in his second term, winning College cricket



colours in his third term, soccer colours in his fourth, an Athletics full-Blue in his fifth (later establishing an undergraduate record put of 42 feet 10 inches), and half-colours for hockey in his eighth term. He also won his colours for Eton fives, a game at which in his time he was reputedly one of the best players in this country.

In 1926 in Part I of the Classical Tripos he was placed in Class I, and won a College Reading Prize and the Hawksley Burbury Prize for Greek Iambics. With a First in Part II in 1928 he was awarded a Strathcona Studentship and went to Edinburgh University to work on Plato under Professor A.E. Taylor for a year. During his year in Edinburgh he combined athletics with his research and won an Edinburgh Blue for shot-putting. He had previously been offered a teaching post at Eton, a post which he took up in the autumn of 1929, and he taught there for two halves, during which he was elected into a Title A Fellowship at the College for a thesis on Plato's *Seventh Letter*. On returning to the College he became Honorary Secretary of the Eagles Club, 'a club' he wrote 'whose chief function is to exist', its members necessarily being those 'whose time is taken up very largely with other activities.' In September 1930 he married at St Giles's Church, Stoke Poges, Eileen Tait, daughter of R.R. Tait of Morven, Ruislip. In due course three children were born of the marriage - Judith, Robert and Peter; both sons in their turn came to the College.

Meanwhile, Bede continued his career as a shot-putter, being a member of the British National Athletic Team from 1927 to 1939, its Captain in 1934-35 when he had the honour of taking the Oath of Allegiance at the opening of the British Empire Games at the White City; he had represented this country at the Amsterdam Olympic Games in 1928. His farthest put of 49 feet remained unbeaten by any other British shot-putter for eighteen years, from 1930 to 1948. He was still putting the shot at the age of forty-five when he won the Cambridgeshire title in 1950.

The College Council appointed him a Tutor in 1932 after a year as an Assistant Tutor, and he looked after those reading Classics, Medicine and Engineering. In 1934 he began to

lecture in the Classical Faculty by invitation, become a Faculty Assistant Lecturer in 1936 and a University Lecturer in 1938. Thereafter over the years he lectured on Plato, Aristotle, History of Greek Philosophy, Greek Political Theory, and Greek Athletics. When he lectured on Plato's political thought he vigorously denounced what he liked to call 'Poppercock'.

At the age of 35 he accepted an invitation from the Governors of Loretto School, Musselburgh, to succeed Dr J.R.C. Greenlees, an Old Johnian, as Headmaster on his future retirement. Then the Second World War took him away from Cambridge from 1941 to 1946, during which time he served in the R.A.F. as a Fighter Controller (Radar) in this country, in the Mediterranean area, and eventually in South East Asia in those remote coral islands discovered by Captain Keeling in 1609 and known as the Cocos Keeling Islands. At the post-war revival meeting of the 'B' Club (for Ancient Philosophers) in the Classical Faculty he spoke on 'Platonism in the South Seas', showing how the inhabitants of the Cocos Islands were in fact a society in many respects not very different from Plato's Ideal Republic.

He returned to the University in 1946. Early in 1944 he had written to the Governors of Loretto requesting them for personal reasons to release him from his engagement to come to the school as Headmaster, and the Governors with regret granted his request. He afterwards told various friends and colleagues that he had felt dubious about the preaching required of the Headmaster there: 'It wasn't that I thought I couldn't preach' he said; 'the real trouble was that I thought I could!' He continued tutoring, lecturing, teaching and directing studies in Classics in the College, served as Senior Proctor 1951-1952, was appointed Senior Tutor in succession to Claude Guillebaud in 1956 and elected President in 1963.

While he was Proctor he went up to Buckingham Palace on the Queen's accession to present a loyal address from the University to Her Majesty and was amused to find himself standing next to a former tutorial pupil of his, much more grandly dressed, the Lord Rector of Aberdeen University, James Keith O'Neill Edwards alias the comedian Jimmy Edwards. It was also during his Proctorship that Mark Boxer, then editor of *Granta*, was rusticated for publishing a poem held to be blasphemous; a procession followed Boxer's 'coffin' to the railway station and a 'funeral oration' was delivered by Hugh Thomas, now Lord Thomas of Swynnerton.

He held the Senior Tutorship at an exceptionally difficult time for the numbers of the College, when the requirement of National Service had come to an end and those who would otherwise have chosen to postpone their entry to the College now wanted to come into residence as soon as possible along with those who had chosen not to postpone. He devised a scheme for 'running-down' the problem over a six-year period while in the meantime taking the maximum possible intake, and doubling-up and even trebling-up the College sets of rooms. It worked extremely well.

While Senior Tutor, serving as Secretary to the Tutorial Representatives, he was involved in important discussions on admissions with the Oxford Representatives. The late D.M. Joslin, then Senior Tutor of Pembroke and later Professor of Economic History here, reported that Cambridge had the great advantage, in these lengthy discussions, of Bede's enormous stamina and unflagging mastery of detail. On his return Bede himself remarked that Oxford logic was surprisingly poor: 'They said our system was not effective in choosing candidates and went on to accuse us of creaming off the best!'

On 14 November 1962 the London Evening Standard in an interview with him on the

subject of admissions reported that he had 'defended vigorously the University entrance system which dons have attacked since the start of term' (the dons in question including Dr Parry of King's and Mr Morrison of Churchill) and further quoted him thus: 'I disagree absolutely with recent statements that bright boys are not getting in, and that their inferiors are. Dons who talk about an unfair network of friendly alliances between schools and colleges which handicaps boys from outside the network are wrong. There may be friendships between headmasters and University tutors but they are not at all sinister. Headmasters and housemasters can all be relied upon to give honest assessments of their pupils' ability. At St John's we have taken boys from more than 600 schools, so no one can claim that we have a public school bias. No system is ever entirely satisfactory. We should continually bear in mind the possibility of improvements, but all the suggested reforms that I have heard of have their defects.' Though from a public school background himself he was outstandingly good at welcoming those from other backgrounds and helping them to feel at home.

In 1965 he was appointed Warden of Madingley Hall in succession to Edward Miller, another Johnian, who moved to the Chair of Medieval History at Sheffield. He held the post of Warden until his retirement at the age of seventy in 1975. It was a post whose duties he and his wife carried out with great distinction and enjoyment. He also served as President of the Cambridge University Association Football Club from 1946 to 1976 and of the Cambridgeshire Amateur Athletic Association from 1960 to 1975. He was particularly proud of his admission to the Livery of the Goldsmiths' Company in 1959 in recognition of services to the Company in connexion with its various educational awards.

His learned publications include reviews and articles in classical periodicals (notably 'The Attack on Isocrates in the *Phaedrus*' in the *Classical Quarterly* for 1937) and contributions to the *Oxford Classical Dictionary*. Though his own scholarly work was small he was none the less a contributory cause of the scholarly work of many others, and on the College Council was always sound on questions of academic priorities. He used to maintain that academic life offered four possibilities, of which no don could cope with more than three; the possibilities were teaching, research, administration, and a family. He himself was an outstanding teacher of the old art of composition in the ancient languages, especially Greek. The secret of his gift is hard to define, but he just always saw truly idiomatic ways of translating things, and could communicate that sense of idiom to many besides the first-class Classics. In fact he was a beloved tutor and teacher, and on his retirement from College teaching a great dinner, organised by John Crook, the then President, was held in his honour in Hall on 15 April 1972. 114 people attended the dinner, and another 104 contributed to a presentation to him of a silver salver.

No account of Bede's career would be complete without mention of the President's Cup (awarded annually to the best golfer on High Table), a cup which he proudly claimed to have won at least once in every decade of his academic life save the last. Among his golfing exploits two deserve to be recorded. At one meeting he ventured to play a No. 2 Wood to get out of a bunker; he succeeded but in the process broke the club. On another occasion when driving from the 5th Tee at Worlington he topped the ball heavily; it leapt forward twenty-five yards and shot into the Ladies' tee-box where it rattled around frenetically before coming to a halt in a position deemed unplayable.

Personally he had several of the characteristics of Aristotle's 'magnanimous' man. With good looks and a large physical presence, deliberate movements and measured speech, he



was always genial, unruffled, unflappable. Principally concerned with honour (but without regarding it as the greatest thing in the world) he was slow to act unless there was something important to be done. Not given to gossip or malice but an accomplished raconteur, he was a shrewd judge of character, with an incisive mind that cut through to the essentials of any problem. Quick-witted and alert he was a master of repartee who could employ plain speaking, irony or humour, as occasion served, with devastating effect. But he did not take himself too seriously and perhaps for that reason was not always taken seriously enough by some of his seniors in the College. He was a man to be with in a tight corner - a man of weight and balance.

A.G. Lee (With help from N.C.B., J.R.B., J.A.C.)

RICHARD MEREDITH JACKSON

Meredith Jackson, Fellow of the College from 1946 until his death at the age of eightytwo on 8 May 1986, will be remembered for his outstanding achievements in a remarkable diversity of spheres: in two quite different areas of legal scholarship; in several forms of public service; and as an intrepid and adventurous sailor.

The son of a Northampton solicitor, he came up to the College from Leighton Park School (a Quaker foundation) in 1921 and gained a First in the Law Tripos. After serving his article of clerkship in London and qualifying as a solicitor he decided against practice (though he remained loyal to the profession throughout his life and was frequently to be seen wearing The Law Society's tie). Instead, and with some fortitude as he had neither university nor college appointment, he returned to Cambridge to forge an academic career and embarked on research into the early history of the English law of quasi-contract. This was a formidable task which involved grappling with the medieval Year Books, but the outcome was highly successful: his essay won the Yorke Prize in 1931 and was published in 1936 in the



Cambridge Lega¹ History series (to be reprinted exactly fifty years later in the U.S.A.). Meanwhile he had become a University Lecturer; and at the relatively early age of thirty-four he proceeded to his LL.D. degree.

During the 1930s a radical change took place in the area of Meredith's research interests. From an obscure branch of the history of private law he turned his attention to the problems of modern legal administration. The result was an outstandingly successful book, published in 1940, entitled The Machinery of Justice in England, which has since gone through as many as seven editions (and an eighth, already under preparation at the time of his death, is now to be completed by another member of the Law Faculty). The impact of this work was well described by Sir Denis Dobson, formerly Permanent Secretary to the Lord Chancellor's Department, in a supplement to the original obituary in The Times, in which he pointed out that in 1940 when the book first appeared 'the need for radical change in our system of legal administration was barely perceived and ... Jackson was one of the first to stress the need for the law and its administration to be more readily responsive to changes in society;' and he went on to give his opinion that in successive editions the author 'showed himself to be a constructive critic of a very high order, albeit one with his feet planted firmly on the ground ... The many changes over the whole field of legal administration during the past 40 years owe much to Jackson ...' This was a fitting tribute from a person uniquely placed to assess his contribution to reform.

During the Second War Meredith joined the Home Office (and also served in the Home Guard), thereby gaining insight into the workings of central government. Familiarity with local government was later acquired by his service for several years as a county councillor. When the Royal Commission of Justices of the Peace was appointed in 1946 Meredith became its secretary; and in later years he served on government committees concerned with subjects ranging from mental health to town and country planning. In 1963 he was appointed sole commissioner to conduct an inquiry into the operation of local government in Barbados.

Somehow he found the time to serve as well as a Justice of the Peace until reaching the retiring age; and he achieved particular prominence in the Magistrates' Association, becoming a member of its Council and the chairman of the Council's Legal Committee. His special services to the Association were recognised by his election as Vice-President, and at the time of his death he was second in seniority of the ten distinguished holders of that office.

Rather strangely it was not until 1946 that the College elected Meredith to a Fellowship. A few years later the University made him a Reader, and in 1966 there came the double distinction of election as a Fellow of the British Academy and also to the Downing Chair of the Laws of England which he held until his retirement four years later.

For the greater part of his life Meredith engaged in vigorous recreations. In his youth he played rugby, he swam and he climbed; but the abiding passion of his life was undoubtedly the sea, and as a sailor he was to win considerable renown. As early as 1927 he crewed for a more experienced colleague in an attempt to cross the Atlantic in a small craft which possessed neither engine, nor radio, nor lifecraft. They nearly succeeded, but were dismasted in a storm while off Cape Farewell. By heroic efforts they managed to keep afloat for six days and were then rescued by a passing merchant ship. Nothing daunted, Meredith later acquired a vessel of his own and made some notable voyages, including several to Spitzbergen, for the second of which the Royal Cruising Club awarded him its Challenge Cup in 1961 for the best cruise of the year. The onset of arthritis in the hip did not deter him from a subsequent voyage to Canada, returning the following year, when he won the Challenge Cup a second time; and later he was to sail across the Atlantic and back yet again before, the necessity of a hip operation finally obliged him to change to a smaller boat and confine himself to shorter cruises.

Meredith was very much an individualist; and he held strong views and some antipathies, though these were to mellow in later years. To some of his colleagues who knew him only superficially he may have seemed a trifle intimidating in conversation; but for those who worked with him (and no doubt for those who sailed under him) as well as for those others, including members of the College staff, who got to know him well he inspired deep respect and real affection. It was significant that the former College plumber made the journey to the crematorium for his funeral.

Arthritis and diabetes were among the least of the misfortunes with which Meredith had to contend. His only son, Sean, who had read Law at the College and rowed in the First Boat, lost his life in an accident at the age of 31. But all his adversities were borne by Meredith with a Stoic fortitude; and even the amputation of a leg when his life was nearing its end was seen by him as a challenge. Perhaps this passage in a report which he wrote for the Royal Cruising Club after an Atlantic crossing epitomizes his character: 'I would have liked a lot more icebergs, but the first rule of cruising is to bear cheerfully with what the Lord sends.' He would have agreed, I think, that this rule is not confined to cruising.

J.C. Hall

OBITUARY

JOSEPH STANLEY MITCHELL

Others describe Joseph Mitchell's academic pre-eminence and detailed personal history, and his long-held Fellowship of the College. He died in early 1987 aged 77 years. It is for me, however inadequately, to attempt a description of his more personal attributes. This is a difficult task for he was a very private person. None of us in the Fellowship knew him well. But we all admired Joseph for his professional eminence, and for his shining kindness to individuals in times of medical trouble, cancer cases in particular, of course, for they were his speciality.

A man of idealism, he was a truly great leader in the recognition of the direction in which his profession of cancer research and treatment must evolve. But his innate shyness and his diffidence in expressing his views, and reticence in personal communication, were a handicap which he always struggled to overcome. Nevertheless he succeeded in the admirable development of Cambridge's post-graduate clinical school, later to transform Addenbrooke's Hospital into a complete new Medical School. That was a triumph, given the then existing climate of difficulty.

I fancy that most in the College's Fellowship never had a long discussion with him: maybe shyness in the one promotes shyness in the potential respondent. And his absence of small talk made the preliminaries to discussion arid, as in attempted conversation in Hall. The person in the Fellowship who knew Joseph Mitchell best was, I believe, R.L. Howland - 'Bede', who died early in 1986 - who had been Joseph's own Tutor for certain periods after his arrival in the College in 1928. 'Bede' had an immense regard for him: and, to interpose, that is one of the happy rewards of tutorship in Cambridge, to see the shy young man blossom later to achieve Fellowship of the Royal Society, or even a Bishopric.

It will not, I hope, be out of order, to recall here part of an incident and conversation with Joseph Mitchell in the train to Liverpool Street, the longest consecutive talk with him which I can remember. It was in the restaurant car and a nearby person, evidently already sodden with drink, was being served still further supplements. Joseph's anger at the circumstances and his concern for that person were powerful. And then he explained to me some background, and confessed the struggle that he himself in youth had had with alcoholism, finally overcome by steady teetotalism. He explained what he believed to be the origin of his own trouble: in infancy a nursemaid had applied to him the old trick of inducing sleep in a reluctant babe by giving little bits of bread soaked in brandy or gin.

Joseph Mitchell was one year senior to myself in age and entry to the College as an Undergraduate, and later we were Fellows together post-war for forty years. Yet I still felt I never really knew him - largely my fault may be. He was very private, very wise and very lovable, but very difficult to know.

G.C.L. Bertram



Joseph Stanley Mitchell was born in 1909. His parents were school teachers. After several scholarships through the local schools he transferred to King Edward VI High School in Birmingham where he was a classical scholar. His career, however, was very much set on its way by the impression made on him when a neighbour died of cancer. He was greatly affected by the sufferings of this friend and it made such an impression on him that he decided to study medicine at the University of Birmingham Medical School. Once he completed the pre-clinical course he won an open scholarship to St John's. He obtained a first in Physics in the natural science tripos but then returned to Birmingham for his clinical studies. He passed his Cambridge final medical examinations in 1933.

However, even at that stage, his interests were very much on research and in the following year he was awarded a Beit Memorial Fellowship to work for a Ph.D. at the Colloid Science Laboratory in Cambridge. His thesis work on 'The Photochemistry of Proteins' was one of the first on the effect of radiation on tissues. However, this laboratory work did not entirely satisfy Joseph as he missed the clinical contacts. He therefore returned to clinical practice, working for a brief period at the Christie Hospital in Manchester, and then returned to Cambridge as Assistant in Research in Radiotherapy in the Department of Medicine at the Old Addenbrookes Hospital. At the outbreak of war he was in charge of x-ray and radium therapy. In 1944 he was asked to go to Montreal to work on the British and Canadian atomic energy project. He was particularly involved in the medical investigations of the biological effects of neutrons, where his background in both physics and medicine proved to be invaluable.

When Joseph returned to Cambridge the equipment in the Radiotherapy Department was all housed in a prefabricated hut and was very primitive by current standards. He, together with Dr L.H. Gray, another eminent Cambridge scientist, produced a report for the Medical Research Council on the use of high energy radiation. As a result of this, when two 30 MeV synchrotrons were provided for medical purposes, one was installed in Cambridge. It was not the most practical of machines, being very cumbersome to use and extremely noisy. Patients required earplugs for comfort when being treated on it. However, it was very much a precursor to the modern high energy machines now generally used in clinical practice.

From then on until he retired, Joseph Mitchell was active in many areas of clinical and laboratory research. He directed an increasingly large department which was planned and built on the New Addenbrookes site. This department showed his considerable foresight in making provisions for future developments and continues to be one of the best designed, as well as one of the largest, departments in the United Kingdom.

His research work was devoted to radiosensitizers. In particular he was interested in the vitamin K analogues which were the precursor models for a new class of sensitizers which continue to be of considerable interest in laboratory and medical practice. His work on targetting these agents with radioactive isotopes had limited success clinically, although preliminary animal studies did show some promise.

More successful were the various clinical trials he was involved with, including setting up one of the first major studies on the treatment of breast cancer in the United Kingdom. This, together with a collaborative multi-centre trial, co-ordinated both from Cambridge and King's College Hospital, set the basis for much of current practice in the United Kingdom.

His patients, friends and their relatives all recognised his work by their constant support of cancer research within the department. The Joseph Mitchell Cancer Research Fund has, over the years, attracted many generous donations towards his work. It is a measure of the esteem in which he was held that these contributions continued to come in after his retirement and indeed after his death.

In addition to his various clinical and laboratory activities he was appointed Regius Professor of Physic in 1967, a post he occupied until 1975. During this time he was very actively involved in setting up the Clinical School of Medicine in Cambridge. Much of its current success is due to his unstinting efforts in convincing colleagues, and the University as a whole, of the need for such a venture.

His national and international reputation was honoured by many awards. He was a Fellow of the Royal Society, Foreign Fellow of the Indian Academy of Sciences, Honorary D.Sc. University of Birmingham and the Pirogoff medalist of the University of the USSR Academy of Medical Sciences. He gave numerous named lectures at national and international societies. In 1951 he was made a Commander of the British Empire.

All of this rather dry biographical detail fails to emphasise the kindness and humanity of Joseph Mitchell, the man. He always had time for individual colleagues, both junior and senior research workers and in particular his patients. He cared for all and gave of himself to all. Indeed on his retirement he confided to me that it was in many ways a relief for him to give up his clinical practice. It removed from him a perpetual burden of worry about all his individual patients. He agonised over each failure but also rejoiced in every success as if it had happened to a member of his own family. In all of these activities, he was magnificently supported by his wife, Dr Lilian Mary Mitchell, whom he married in 1934. When she died in 1983 it was obviously a tremendous and lasting blow to him. They were a superb team. Their open house parties were famous within the department.

He will be long remembered within the department in which he worked and by his patients and their relatives.

Norman M. Bleehen

Obituaries

Mr Buck

The summer of 1988 brought the sad death at the age of 73 of Norman Buck, the retired Sub-Librarian of the College, known to many generations of undergraduates as The Librarian and famous among users of the Library for his delightful manner, a combination of unfailing courtesy and helpfulness with a humorous twinkle. On Thursday 26 May, while getting ready to attend the funeral of a fellow oarsman, he had a sudden heart attack and was rushed into intensive care at Addenbrooke's. He made what seemed a good recovery and looked forward to being sent home, but on the evening of Saturday 4 June he suffered a second and fatal attack.



Norman Charles Buck, the only child of Charles Buck, a County Council worker, and Mildred his wife, was born at Comberton on 20 May 1915. The family moved to Barton in October of that year and there Norman lived, apart from six years of war service, for the rest of his life, during which he became an expert on the history of the village and accumulated materials for a projected book about it. He received his early education at the Barton Church of England School. Had he gone on to Grammar School as planned, the College would have lost him. But on the day before the entrance examination he was taken seriously ill with appendicitis and peritonitis. On recovering he had no choice but to apply to the Youth Employment Exchange, and in July 1929 at the age of fourteen he was taken on by the then College Librarian Mr Previté-Orton as Library Boy. He worked under the sternly benevolent eye of the Sub-Librarian C.C. Scott, attending the Cambridge Technical College for courses in English, German, Book-keeping and Shorthand, and receiving private tuition in Latin and French. In October 1931 he was promoted to Junior Assistant Librarian; some of his early experiences in the Library are entertainingly recorded in his 'Library Memories' (see *The Eagle* LXIX 291 14-20).

In those pre-war times he rowed for St John's College Servants' Boat Club for several years (including the seasons 1932-33 and 1934-35 when the Club won the Inter-Collegiate races), for the University College Servants' Boat Club first boat in the City Bumping Races and in the 1934 race against the Oxford University and College Servants' Boat Club. He also played soccer for St John's College Servants in 1936 when they won the Inter-Collegiate Knockout Trophy.

When the war came he joined up in the Royal Air Force and after serving as a Flight Sergeant in Middle East Command from September 1941 to December 1944 became an instructor at the RAF School of Administrative Trades at Kirkham. He married on 2 August 1941 Ruby Nightingale of Barton, by whom he had a daughter Jennifer. After demobilisation on 4 February 1946 he returned to the College, still as Junior Assistant Librarian, but on 17 March 1947 was appointed Assistant Librarian and eventually on the retirement of C.C. Scott in 1956 Sub-Librarian. Later, on 1 October 1969, he also took over as Keeper of the College Biographical Records after the death of the retired Librarian F.P. White, who for many years had devoted himself to the compilation of a biographical sheet for every member of the College as far as possible from the sixteenth century onwards. In 1980 he was appointed to the Committee on the Occupancy of College Rooms 1936-76 and was responsible for completing and checking the list of occupants begun by Dr Norman Henry.

But not all his energies were devoted to the service of the College. He served for 35 years as Clerk to Barton Parish Council and Treasurer to Barton Parochial Church Council. He was a Trustee of Barton Village Hall from 1952-75, Hon. Secretary to Barton Silver Jubilee Committee in 1977, and a member of the Coton and District Branch of the Royal British Legion. He served on the Committee of the Cambridge Library Group for two years. He was also a keen bee-keeper and much in demand for his skill in the taking of swarms. As President of the Pig Club, he regularly regaled meetings with accounts of his epic encounters with the bees, ducks and other hazards of Barton life.

Though due to retire as Sub-Librarian on 30 September 1980, at the request of the Library Committee he agreed to continue until 30 September 1982. He continued until his death as Keeper of the Biographical Records. On 11 December 1982, under University Statute B IV, he was admitted to the Honorary Degree of Master of Arts for his services to members of the University and to scholars from this country and abroad. The tributes to him from such scholars were remarkable. Professor Peter Herde of Würzburg wrote: 'I have rarely received such expert professional help as I was then privileged to receive from Mr Buck. I have duly noted his help in the preface to my *Audientia Litterarum Contradictarum*. Besides, I remember his warm, humane personality." Professor Domenico Maffei of the University of Rome wrote: 'Had it not been for the continuous assistance and the precious advice given to me by Mr Buck, I should not have been able to complete the research on medieval jurisprudence and Renaissance printing whose results have been published by Klosterman.' The Public

Orator in his English paraphrase of the speech he delivered on the occasion wrote: 'His services are acknowledged in countless footnotes and prefaces, and when finally his retirement was announced letters arrived from all over the world, and their message was one of consternation as much as of congratulation. For he had become, as was said of a scholar of antiquity. "a living library and a walking museum". If you wish to know what a perfect Librarian should be, he has given the answer by his own example: an expert administrator, a connoisseur of books, and a courteous host.'

The Public Orator is not of course on oath but in this case his words are no rhetorical exaggeration but the sober truth. During his forty-seven years in the College Library Mr Buck built up a unique knowledge of its resources and of their relevance to research in various fields. There can have been very few who consulted him in vain on any matter connected with the Library or with the history of the College and its members. No inquiry was too much trouble for him; he never complained or made a fuss but carried out his duties with inexhaustible patience, politeness, and efficiency. His motto could have been the princely one: *Ich dien*. The great throng of friends present at his funeral at Barton Church on Friday 10 June testified to that deep affection felt for Norman Buck in his village, his College and his University which the Revd Hugh Searle expressed so movingly in his address. St John's was fortunate indeed to have the services of such a remarkable man, and for so long.

> A.G.L. (with the help of Mrs Buck, H.R.L.B., P.A.L. and M.B.P.)

Professor Sydney Goldstein

Professor Sydney Goldstein, FRS, who died on 22 January aged 85 at his home in Massachusetts, was a prominent force behind the great advance that occurred in the field of fluid dynamics from the early 1930's.

An expositor par excellence, he was an inspired choice as the editor of 'Modern Developments in Fluid Dynamics', which appeared in 1938. Starting from first principles, this co-operative work put into perspective the exciting developments in the mechanics of real (as distinct from ideal) fluids which had been brought about in the previous 30 years by the research of Prandtl, Taylor, von Karman and Goldstein himself, and it proved to be the departure point for further rapid progress. It is no secret now that he himself was the author of the all-important first two chapters, and he exercised a leading influence on the subsequent researches both by his capacity to stimulate research students and through his own contributions. These covered many topics, including airscrew theory, geophysics, turbulence, supersonic flow, aerofoil design, hydro-dynamical stability (for which he had already won the Adams Prize in 1935) and above all boundary layer theory. Special mention may be made of his studies of flow near separation, which have been of seminal importance in later work.

Goldstein was a Fellow of St John's College, Cambridge, from 1928 to 1945. He thereafter filled chairs of Applied Mathematics at Manchester (1945-50), the Technion

Institute of Technology at Haifa (1950-55) and Harvard (from 1955). During the war he worked at the Aerodynamics Division of the National Physical Laboratory. From 1946 to 1949 he was Chairman of the Aeronautical Research Council. His distinction was recognised by, among many other honours both here and abroad, his election as an Honorary Fellow of St John's College, Cambridge (1965), of the Royal Aeronautical Society (1971) and of the Institute of Mathematics and its Applications (1972).

He was married in 1926 to Rosa Sass, who survives him with one son and one daughter.

F.H.H.

Joseph Burtt Hutchinson

Joseph Burtt Hutchinson, Fellow, was born at Burton Latimer, Northamptonshire, on 21 March 1902 and died in Cambridge on 16 January 1988. His father was a farmer; and the family were Quakers. From this background there sprang a commitment to practical agriculture and strong religious and ethical principles that remained with him all the days of his long life. After education at Ackworth and Bootham Schools, Hutchinson came up to St John's in 1920 to read Natural Sciences, specialising in Botany in Part II and staying on for a year to work on plant breeding in the School of Agriculture. He then pursued a course at the Imperial College of Tropical Agriculture in Trinidad, which was followed in the years 1926 to 1933 by an appointment as assistant geneticist at the Empire Cotton Growing Corporation's Cotton Research Station in the Island. From 1933 to 1937 he worked at the Institute of Plant Industry, Indore, India as geneticist and botanist, before returning to Trinidad as chief geneticist at the Cotton Research Station and working there till 1944, the year in which he was awarded a CMG. Hutchinson was then appointed the Empire Cotton Growing Corporation's chief geneticist and then in 1949 the first Director of their Cotton Research Station at Namulonge, near Kampala, Uganda. He also worked briefly in the Sudan.

He became a Fellow of the Royal Society in 1951 (and was awarded its Royal Medal in 1967). He was knighted in 1956. In the following year he was elected Drapers' Professor of Agriculture in Cambridge and a Fellow of St John's. On retiring from the Professorship in 1969 he returned to India briefly to work at the Indian Agricultural Resarch Institute in Delhi; and gave posterity the benefit of his long and wide experience in his *Farming and Food Supply: the Interdependence of Countryside and Town* (1972).

Hutchinson took his Cambridge Sc.D. in 1949 and received honorary doctorates from the Universities of Nottingham and of East Anglia. He was President of the British Association for the Advancement of Science in 1965-66; and was elected a Foreign Fellow of the Indian National Science Academy in 1974.



Such is the bare outline of a highly distinguished life. But justice has yet to be done, except for those who can read between the lines, to the wide scope and great originality of his work on the taxonomy and genetics of the cotton plant in most of its many regional manifestations.

It was when Hutchinson was Chief Geneticist at the Cotton Research Station in Trinidad that he laid the foundations of a highly successful scientific career. In collaboration with Drs. R.A. Silow and S.G. Staples he carried out a thorough and detailed analysis of genetical and evolutionary relationships within the genus *Gossypium*. This work culminated in a joint work entitled "The Evolution of *Gossypium* and the Differentiation of the Cultivated Cottons" which is widely recognised as one of the most comprehensive studies of the evolutionary history of a single genus ever carried out.

Hutchinson broadened his research interests when he became Director of the Cotton Research Station at Namulonge and supervised marked advances in crop physiology, particularly in water relations and yield analysis; characterisation of rainfall pattern; soil nutrients; and early assessment of spinning characteristics of cotton libre. In addition plant breeding at the Station brought great practical advances.

At this time Hutchinson also did much extramurally for Makerere (University College of East Africa), for the East Africa Agriculture and Forestry Organisation and for the excellent teaching in Agriculture-cum-Nutrition evolved at the Gayaza High School for Girls.

The Chair in Agriculture at Cambridge brought Hutchinson new challenges. Thus, he was faced with the task of restructuring the Agricultural Tripos. In this work he became convinced that Cambridge should train General Agriculturalists and he developed a three-year course to this end. However, before the new Tripos had had time to prove itself the School of Agriculture became a Department of Applied Biology to concentrate on teaching and research in Environmental Biology and Agricultural Science. Hutchinson implemented the necessary changes with considerable skill and patience so that he was able to hand over a vigorous department to his successor when he retired in 1969. The University and his College were not slow to recognise Hutchinson's wisdom and sound judgment and he served with distinction on numerous important committees.

Hutchinson was thus no narrow cotton specialist. Of farming stock as we have seen, and endowed richly with practical commonsense, he became very well versed in indigenous tropical agricultural systems; and he had great insight into the difficulties faced by Third World cultivators. He farmed practically at Namulonge. He thought deeply too about British agriculture and many of its problems that are still with us; the use and effects of pesticides, and the conservation of wild life, for example. In all of his work, too, he was no professorial dogmatist, for he carried with him the modesty of the true scholar, ever willing to learn from the work and the thinking of his younger colleagues. He was an inspired lecturer both to technical and to multi-disciplinary audiences, and a great director of research; and a generous and helpful colleague. In all his diverse postings, he threw himself enthusiastically and with high integrity and a strong sense of service into the work of his own and related institutions. Thus he served in Uganda as chairman of the young Makerere College; was the first chairman (1964-72) of the Centre of South Asian Studies at Cambridge, and the wise scientific adviser to its research project on agrarian change in rice-growing areas of South India and Sri Lanka. He was a man of firm faith who felt deeply the call to serve his fellow men through the talents with which he had been endowed, and to do so with 'uprightness and integrity'. He ended his St John's College lecture in the University of East Anglia in May 1977 with these words:

There still remains one question: does it matter? Are we just in an aimless progression from the big bang that was the beginning to a big bang, cosmic or man-made, that will be the end? Or is there meaning and purpose to it all? One begins with the faith transmitted from one's parents, and I was fortunate in receiving a Christian faith that was lived out in uprightness and integrity. This I have held, and in so far as I have lived up to it, life has made sense, and an awareness of purpose and meaning has grown stronger. So I stand where my fathers stood, with a sense of accountability for what I do and the way I live, and with a hope that transcends the duration of my natural life.

In 1930 he married Martha Leonora (Lena) Johnstone, who graciously shared his faith, his life and his work and only survived him by a few weeks. They left a daughter and a son (also a member of the College).

B.H.F. D.G.M.

Martin B. C. Simpson

One of the victims of the Lockerbie air disaster on 21 December 1988 was Martin Simpson, a highly regarded member of the College who in recent years had served the College by managing a portfolio of high technology stocks in the United States, where he had worked for some time. He was returning after a brief visit to Cambridge.

Martin was born in Cape Town in 1936, receiving his school education at Michaelhouse, Natal; and he entered the College in 1954 to read Modern Languages, followed by Law. As an undergraduate he made his mark in a number of spheres: for example he boxed for the University, and he played rugby and cricket at College level. His love of travel was very pronounced, and after graduating in 1957 he and his former room-mate drove from the North Cape to the Cape of Good Hope. Subsequently he worked in Canada, and after marrying in Toronto he and his wife set off on a lengthy honeymoon which involved a circumnavigation of the world and lasted over two years. They then settled in New York, where Martin worked in investment research and studied for a Ph.D. at New York University. Subsequently he became an investment analyst in the technology field, founding his own (highly successful) company in 1973.

Martin was a man of extraordinary vitality: he seemed to have boundless energy, which was coupled with enthusiasm and exceptional courage, and at the same time he fairly bubbled with good humour. Despite his extremely active life he was careful not to neglect his family or his many friends, and he found the time for philanthropic work for local schools and charities.

It was characteristic of Martin that, although he had visited Cambridge from New York only a few months before, he decided to come over again in December in order to attend the annual dinner of the Johnian Society, inviting his former room-mate to be his guest. It was no less characteristic that he found time while in Cambridge to visit his former bed-maker as well as those Fellows whom he knew well. That his life should be cut short (at the age of 52) on his way home just a few days later is the starkest of tragedies, particularly of course for his widow Pat and their two children.

A service of thanksgiving for his life, arranged by his cousin Peter Simpson, also a member of the College, took place in January at the Queen's Chapel of the Savoy in the presence of his family and, needless to say, a large number of Johnians.

J.C.H. C.M.P.J.

Walter Bruford

Walter Horace Bruford, who died at Edinburgh on 28 June 1988, aged 93, was the beloved Nestor of Germanisten in this country. He came up as a scholar to St John's from Manchester Grammar School as one of the early students of the Tripos in French On graduating with Firsts in 1915 Walter Bruford joined the Admiralty as a junior decoding officer; in that capacity he helped to decode the notorious 'Zimmermann telegram' which influenced the decision of the United States to enter the War. He spent most of his academic career between the wars in Scotland, where he always felt more at home than in England. Throughout World War II he worked in Foreign Office Intelligence, and from 1951 to 1961 he held the Schroder Chair of German at Cambridge. With his Scottish wife, Gerda, whom he married in 1925 and who predeceased him in 1975, he kept a home in the lonely but lovely countryside of Berwickshire, and eventually retired there.

Walter Bruford did not have the reputation of an exciting lecturer. His very substantial contribution to German studies come rather from his books. He was among the first literary scholars to give extensive thought to the material conditions in which literature is founded. Germany in the Eighteenth Century (1935) focuses on the social, economic and institutional life of Classical Weimar, and some of this argument is continued in *The Tradition of Self Cultivation* (1975), which tells the story of the cultural aspirations of the German bourgeoisie in the period following Goethe's death in 1832, 'from Humboldt to Thomas Mann'. If these books have been acclaimed in all English-speaking countries and (in their translations) throughout Germany as works of enduring scholarship, this is because, in the heyday of Marxist criticism, Bruford's investigations were singularly free from ideological preconceptions or indeed excessive expectations. His deeply informed love of literature prevented him from ever claiming that the study of origins - economic, social, or biographical - could provide explanations of literary greatness; his aim was to describe circumstances rather than explain origins.

Bruford was a man of charm and sweet humour, unversed in intrigue and generous in his reactions to his colleagues and in his comments on their work. When the present writer saw him a few months before his death, in the brilliant spring sunshine of an Edinburgh garden, that charm and bemusement at the passage of time made the visit memorable. There was no sting in his irony, rather a sense of wonder at the variety of people and books. In Cambridge he ran a happy and enterprising department, and presided over his Tuesday night colloquia in the Second Court of St John's gently and with great distinction. Yet his serenity, which he shared with his wife, was not cheaply bought. He belonged to a generation whose lives were deeply disturbed and disrupted by two world wars: through his avocation as a student of German literature and history he was forced to face, first the German atrocities in Belgium in 1914 (which he never forgot), and then the fact that Buchenwald lies but a few miles from Goethe's Weimar, and that the young Goethe had hunted with his beloved Duke in the forests where, in 1933, one of the first concentration camps was built. Unlike most of his colleagues in Germany he seems to have had little doubt about the nature of the Third Reich: 'Whole libraries of factual information,' he wrote with characteristic moderation, 'on the political, economic and social history of Germany and the story of her relations with the rest of the world, have not entirely removed, for many of us, our sense of shock at becoming aware of what seemed so abrupt a change in national character'. He

was suspicious of generalizations: he would allow himself a phrase like that about 'national character' only after giving it a substantial and detailed historical meaning. When, on coming back to Cambridge in 1951, he turned to Russian studies, writing a book on Chechov's short stories, this was partly as an escape from the tensions which his awareness of the contradictions of German history caused him. He held no strong political views, yet in his Bithell Memorial Lecture of 1979 he has some sharply critical things to say about the Anglo-German myth of the 1930s and its 'old specious plea for an alliance of two self-styled superior nations'.

His spendidly succinct commentary on Goethe's *Faust* (1965) shows that by no means all that Walter Bruford wrote on German topics is informed by these tensions. In retirement he returned to the study of classical Greek drama and of Aristotle's poetics, 'as an antidote' he once said, 'to too much Nietzsche'. He had a fastidious dislike of dilettantism and showmanship: when writing on the eighteenth and nineteenth centuries he did not have an eye on the horrors of the twentieth. But in some of his best work he came to grips with 'the German problem' as it presented itself to his generation - the co-existence of inhumanity with a high culture of inwardness.

His friends all over the world, including both parts of Germany, will remember his gratefully and with more affection than is usual in Academe.

J.P. Stern