EMMANUEL COLLEGE MAGAZINE

Volume C
2017–2018

The *Magazine* is published annually, each issue recording College activities during the preceding academical year. It is circulated to all Members of the College, past and present. Copy for the next issue should be sent to the Editors before the end of Easter Full Term (14 June) 2019.

Enquiries, changes of address, and items of news about members of Emmanuel should be addressed to the Development Director (Dr Sarah Bendall), Emmanuel College, Cambridge CB2 3AP, email records@emma.cam.ac.uk. There is also a form at http://www.emma.cam.ac.uk/members/keepintouch.

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The Editors would like to express their thanks to the many people who have contributed to this issue.

BACK ISSUES

The College holds an extensive stock of back numbers of the *Magazine*. Requests for copies of these should be addressed to the College Archivist, Emmanuel College, Cambridge CB2 3AP.

HISTORICAL INDEX

Over the years the *Magazine* has included many articles concerning the history of the College. A list of these, with a card index of their contents, is maintained in the college archives, and may be consulted on application to the Archivist, Amanda Goode.

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A NOTE ON THE ILLUSTRATIONS

The illustrations prefacing the *Magazine*'s individual sections are from the set of photographs Sara Rawlinson has taken of Emmanuel College Library.

The Centenary Volume of the Magazine

'A Capacious Phonograph': A Celebration of the Centenary Volume of the Emmanuel College Magazine

The annual delivery of the *Emmanuel College Magazine* (*ECM*) has led in recent years to ever-heavier thuds upon members' doormats and if the *Magazine*'s current rate of expansion continues there may soon be difficulty in getting it through a letter box at all. Perhaps this hundredth volume will exceed last year's bumper issue, which came in at a hefty 376 pages. By way of contrast, volume I, which was issued at the end of Easter term 1889, contained a mere 36 pages.

Members will immediately note that this 'centenary' volume is dated some 129 years later than the first and may wonder why so many years appear to lack an issue. The two world wars were partly responsible, for the 1915–18 'War Editions' did not form part of the regular numbered series, nor did the two much slimmer bulletins issued in 1942 and 1943. Most of the other apparently missing years are accounted for by anomalies and changing practices in the numbering: vol. XV, for instance, covered both 1903–04 and 1904–05. A few years later production of the *ECM* ceased altogether, perhaps as a consequence of the election of a new Master. Certainly the editors had expected it to continue, for they looked forward in the Lent 1911 instalment to 'the next number', but as it turned out no further volumes were produced until after the First World War. Peter Giles took up the Mastership of Emmanuel in May 1911 and although he had contributed a few articles to the *Magazine* over the years, it may be that he was unenthusiastic about it, particularly, perhaps, because of its tendency to run at a loss, of which more later. Giles certainly played no role in the production of the war editions, which were the sole responsibility of one of the Fellows, PW Wood. Those war-time numbers were greatly appreciated by members and that may have influenced the college's

decision to resume the regular *Magazine* after the war. During the inter-war period the numbering system changed and it became customary for each volume to encompass two academic years (thus *ECM* vol. XXVII, no. 1 covered 1929–30, while no. 2 came out the following year, 1930–31). This rather confusing practice continued until 1938 but was dropped when production of the *Magazine* resumed after the hiatus of the Second World War. It is therefore a moot point as to whether this hundredth volume can justly be considered the centenary edition, and indeed the 1988–89 issue included a feature boldly entitled 'Centenary of the *Magazine*', although it acknowledged that: 'This is the hundredth year of publication of the *College Magazine* – not its hundredth volume, since there have been gaps, but we do have cause for celebration'. Given all the vagaries of numbering it is impossible to identify an incontestable centenary date, and in any case the longevity of the *ECM* surely merits more than one celebration.

Before considering the specific circumstances that led to the launch of the *Magazine* in 1889, it is interesting to look at the wider context. The first Cambridge college to produce an in-house magazine was St John's, which brought out *The Eagle* in 1858–59, but it was not until the 1880s that any other colleges followed suit: Jesus first, in 1885, followed a year later by Christ's and, three years after that, Emmanuel. In the 1890s similar publications were launched by Trinity Hall, Gonville & Caius, Pembroke, Peterhouse and Corpus Christi. It seems very likely that the two Emmanuel Fellows who, as we shall see, were primarily responsible for the inception of the *ECM*, had had a sight of the new magazines issuing from Jesus and Christ's and realised the potential of such publications. Many of the college magazines had names: Corpus Christi's was *The Benedict*, reflecting the college's connection with St Bene't's, while Peterhouse's was rather startlingly called *The Sex* (actually short for Sexcentenary). Most of the other magazine names, though, made reference to their college's coat of arms, hence *The Silver Crescent* (Trinity Hall), *The Pheon* (Sidney Sussex) and *The Chanticlere* (Jesus). Had Emmanuel adopted this practice the *ECM* would presumably have been called *The Blue Lion*, or perhaps *The Lion Rampant*, but it

Caricature of PW Wood, from The Lion*, 1911. PW once commented that* The Lion *'may be depended upon for airy phantasies (and libels)'*

eschewed this frivolity. (There was, though, a short-lived 'alternative' Emmanuel magazine called *The Lion*, a parody of the *ECM* that ran from 1908 to 1912. It proclaimed its ethos on its cover: 'Suspect our pages of no sneering guile, We strike at some men to make all men smile; Do you prefer the solemn, serious mien? Then seek the staid official Magazine'. As with any student publication consisting largely of scurrilous satire directed at resident undergraduates (and, as far as the authors dared, the Fellowship), much of *The Lion* is completely unintelligible to later generations. It certainly does offer an interestingly different perspective, though, for the 'official' *Magazine* would assuredly never have printed a poem containing couplets such as: 'Some sepulchres are white, but – well, they're pipe-clayed in Emmanuel'.)

The sequence of events within Emmanuel that brought the *ECM* into existence was described in its inaugural volume, which informed the readership that during a Debating Society meeting held on Saturday 26 January 1889, the president of the society (Napier Shaw),

> in lieu of a debate, gave the Society a most interesting sketch of the College, tracing the present position of Scholars and Commoners relatively to the Fellows and Doctors of the College, from the time when the Sizars acted as 'gyps' to their Seniors and the Commoners were guests of the College, down to the present day.

Mr Shaw concluded by suggesting that the Society might well commemorate this stage in its history by setting on foot a college magazine. The suggestion was discussed and at length finally carried by acclamation. Mr Adam was appointed editor, together with a committee consisting of J B Peace, G S Dodgson, and

Sir Napier Shaw in about 1904

C J Hollis. James Bennett Peace was a graduate student who would be appointed Junior Fellow in June 1889, shortly after the first instalment of the *Magazine* was published; he was Bursar for 27 years. George Dodgson, a medical student, later worked as a surgeon and physician in a Middlesex hospital, while Charles Hollis ended a long career in the church as Prebend of Chichester and Rural Dean of Worthing. 'Mr Adam' was James Adam, classics Fellow at Emmanuel since 1884. The account of the meeting in the Debating Society's minute book offers a few more details: 'At a suggestion thrown out by the President … Mr Adam then proposed "That a College magazine be started to appear once a term" … Mr Peace then proposed Mr Adam as Editor'. Incidentally the meeting resulted in more than one lasting innovation, for in addition to launching the *ECM* the society also voted to set up boards inscribed with the names of College Blues; they have been kept up-to-date and are displayed in the Museum.

Napier Shaw and James Adam, then, are to be celebrated as the originators of the *ECM*. Shaw had an interesting career: matriculating from Emmanuel in 1872, he was sixteenth Wrangler in 1876 and gained a First in physics a year later, an achievement which led to a Fellowship. He had rowed for the college as an undergraduate and later managed the Amalgamated Clubs' finances so successfully that the Boat Club was able to acquire the site for a boat house. Shaw envisaged spending his entire career at Emmanuel but a letter in the college archives gives pretty clear evidence that he was bitterly disappointed at not being considered for the Mastership in 1895, and in 1899 he left to take up a post in the Meteorological Office. Under his directorship the Met Office underwent a transformation and the crucial role it played in the First World War brought Shaw a knighthood. He later compiled a weighty

scrapbook, preserved in the college archives, which contains many mementoes of his years at Emmanuel. Although the initial idea of a college magazine was unquestionably Shaw's, due credit must also be given to James Adam for immediately taking up the suggestion and agreeing to do most of the donkey work. True, the printing and distribution of the magazine became the responsibility of the College Clerk, but *he* received additional remuneration, whereas the editorial chores had to be done for love, not money. Adam's early death is noted on p. 76 of this *Magazine*.

The hopes of the founders of the *College Magazine* were expounded upon in the editorial that opened volume I under the heading 'The Lion prologises':

> When a new Magazine is born into an already over-populated world, it behoves the authors of its existence to justify its origin and aim. The Emmanuel College Magazine is intended in the first instance to carry out a resolution of the debating society, to the effect that "it is desirable to found a college Magazine." To the scientific historian of our college in the nineteenth century will fall the duty of tracing in detail the circumstances that led to this motion; for the present it is enough for us to introduce the impetuous young cub upon the stage and beg for him a patient hearing, while he explains in no rampant style the why and wherefore of his roar.

The 'cub' then takes over:

> If (like Henry Irving) a lion may improve on Shakespeare, I would say that all the world is a multitude of stages, and one of them is Emmanuel. On it is continually enacted the drama of college life. Perhaps to the eye and ear trained in the unities of the classic buskin, the entertainment may seem a little mixed. What would Sophocles have thought of a drama, in which athletic contests, social and literary and scientific clubs, chapels, lectures, and quiet study within sported oaks are each in turn represented on the stage – where the actors come and go, receiving the baccalaurean wand, no longer three, but a hundred and more? Yet Emmanuel has her unity as well as Sophocles – the unity of Education.
>
> I am neither actor, nor spectator, and yet I think I have my place. I play the part of a capacious phonograph, catching forgotten melodies that hang about your gray buildings, or lie hidden in your dusty tomes, mingling them with the music of the present, heard both from within your walls and from the greater Emmanuel throughout the world, and reproducing the composite melody in a voice just loud enough for all Emmanuel men to hear. When my lungs develop, I shall roar louder. Meantime, I pray you, plaudit.

This exposition of the aims and content of the *Magazine* remains pertinent, for the formula has not changed much over the ensuing 129 years. News of the Fellowship, reports of the activities of junior members, career updates from Emma members (and, in the fullness of time, their obituaries), accounts of building works in the college precinct, poetry, articles written by students about their travels and experiences juxtaposed with Fellows' investigations into various aspects of college history, remain the staple fare.

The very first issue of the *Magazine* contained nearly all of these elements. Evelyn Shuckburgh, graduate and Fellow of Emmanuel who was later to write the first history of the college, contributed a chapter on Sir Walter Mildmay and Laurence Chaderton, while Professor Mandell Creighton wrote a piece on Harvard College. There were some literary submissions from undergraduates, most of whom modestly identified themselves only by pseudonyms or initials, necessitating an annoying amount of detective work for later historians. George Cave Orme related an excursion into the Australian bush, while 'J P K' described the fevered dream he had suffered following his exertions in the mathematics examinations. Submissions of poetry were solicited and to start the ball rolling the *Magazine* included a composition entitled 'That tripos', penned by 'Redral' (one of the less challenging pseudonyms, being easily identifiable as the alias of George Larder, BA 1889, later a clergyman and schoolteacher). The opening stanza introduces the tragic hero of the piece: 'A youth upon whose fevered brain/Was writ the dolorous refrain – "That Tripos!"'. In the ensuing nine verses a harrowing tale of mounting examination stress is related with some relish, the unfortunate student finally expiring by the railings of Senate House, while 'from St Mary's tower the bell/Of curfew seemed to toll his knell'. A musical competition was also launched, with the aim of establishing an official Emmanuel College song or, as the editorial committee put it, 'a poetical expression for our collegiate unity'. This attracted a

submission from Arthur Compton, a member of the Emmanuel Musical Society, which was published in the next instalment. Entitled *Carmen Emmanueliense*, his song began: 'Founded of old, Gifted with gold, Backed by the bounty of Mildmay the bold' and continued in a similar vein for several verses. Evidently it did not catch on but its rousing chorus – 'Fit via vi! This be our cry, Men of Emmanuel never say die' – was echoed with more lasting success a couple of years later in James Adam's poem *Fit Via Vi*, which was printed in the Michaelmas 1892 instalment of the *ECM*. Adam's latin verses were set to music a year or so later by Arnold Culley, the organ scholar, who in later life was master of the choristers at Durham Cathedral and a minor composer. The phrase *Fit via vi*, coined by Virgil in the *Aeneid* (as noted by Robert Jones in last year's *ECM*) had been the motto of the Emmanuel Boat Club since at least 1844 but it is not certain that Adam wrote his poem with the Boat Club in mind, for his verses are a general paean to Emmanuel. The EBC nevertheless soon adopted the Adam/Culley composition as their official anthem.

Classical Society photo, 1888, including George Larder (standing second from right, in the third row) and James Adam, president of the society and first editor of the College Magazine *(seated, wearing bowler)*

Volume I's literary offerings were followed by the 'College news' section. This included an obituary of the Revd George Allsopp, vicar of the Suffolk parish of Ilketshall St Margaret's for 42 years, that ends, rather touchingly: 'A life so spent can hardly furnish annals for recording; but those who knew Mr Allsop will be glad that his course of quiet usefulness has not ended without a word of notice at Emmanuel'. There then came the reports of the various clubs and societies, headed in that first volume and for many years to come by that of the Boat Club, as befitting the senior college student society. Other sporting clubs that contributed reports were football, cricket, tennis and fives, and there was a brief account of the 'College sports', a chilly sounding athletics fixture that took place in early February and was hampered ('particularly the high jump') by strong winds. Some of the sporting clubs had acquitted themselves better than others; the association footballers had experienced 'continued misfortune' since Michaelmas 1888 but

Arthur William Henry Compton is standing second from the left in this 1891 Athletics Club photo. He emigrated to New Zealand in 1896 and had a distinguished career in the church, finishing as honorary canon of Wellington. He bequeathed £100 to Emmanuel in 1928

the rugby players had been reasonably successful; the Cricket Club reported that bowling was its weak point as none of its older members could be called 'deadly', adding that its record 'for catches dropped in a single match was – but we forbear to recall such harrowing incidents, and can only hope they will not occur again'. Non-sporting clubs were represented by the Debating Society, the Musical Society, the Classical Society, the Mildmay Essay Club and the Natural Science Club. The Musical Society reported that the 'only event in last term worthy of notice was the Popular Concert given by the society in the Guildhall on Saturday February 16th, the president in the chair. The room was crowded from end to end; and to judge from the large number of encores the society's efforts were greatly appreciated.' The programme included works by Mozart, Mendelssohn, Sullivan, Bizet (the toreador's song from *Carmen*) and various popular songs of the day, one of the most prominent performers being the aforementioned Arthur Compton, a singer of 'vigour and grace'. The Natural Science Club heard speakers on subjects as diverse as 'The nature of life', 'Photography' and 'Life in a London hospital'.

The launch of the new *Magazine* went well. James Adam was able to report the financial success of the first number at a Debating Society meeting held in October 1889, shortly before the second instalment came out, and in March 1890 the Debating Society agreed that three more numbers should be produced, after which the existence of the *ECM* seems to have been taken for granted. There were fluctuations in the quantity (and doubtless the quality) of contributions, which caused a few editorial problems; PW Wood later recalled that it had been customary to 'wait until sufficient material was in hand to make up a reasonable number of pages, with the result that, when the College was happy in having no history and the Editor unhappy in having no literary contributions, the interval between successive numbers grew long.' PW seems to be over-doing the gloom here, as was his wont, but it is true that the termly instalments proved too much of a strain and were replaced with twice-yearly ones (when the *ECM* was revived after the First World War it became an annual production). The popularity

of the *Magazine* was indisputable, however, and many regular features were added to it over the years, such as names of matriculands, prize-winners and scholarship-holders, brief biographies of newly appointed Fellows, tripos results listed by name, subject and class (a feature that caused occasional mortification and was later discontinued) and a review of the year, written sometimes by the Master but equally often by a Fellow.

The *Magazine* had been launched on the understanding that it would be funded by subscriptions, plus a subsidy from the Amalgamated Clubs, but it soon became clear that Emma members' enthusiasm for the *ECM* was not matched by a concomitant willingness to pay for it, with the result that the *Magazine* account was in arrears as early as Easter 1892 ('the Editorial Committee would take this opportunity of reminding subscribers that all outstanding subscriptions should be sent to the Editor …'). The cost of the first instalment, including the Clerk's time, was £9 9s and the initial subscription was 4s, but this was very soon dropped to 3s 3d and then 3s. The war editions were priced at a mere 2s, but even so the editor, PW Wood, found it impossible to exact subscriptions and had to rely on a bail-out from other college funds. When the *Magazine* was revived in 1919 it clearly had to be put on a different footing and it was therefore decided that it should be financed as far as possible from the College Association Fund, which in turn received most of its income from the registration fee paid by members of the college on going down. This system worked well enough for a while, but the *Magazine*'s production costs rose inexorably and although the registration fee was raised from time to time it never provided an adequate income for very long. In the 1970s, a period of high inflation, the *Magazine*'s viability became subject to recurrent scrutiny and by the mid-1980s there was talk of reducing its size, the Financial Tutor advising the Bursar that 'It could perhaps be stressed to the Editors of the *College Magazine* that they too must operate with some notion of financial restraint in mind; otherwise we may have to think of a different way to fund the whole exercise'. In the end, though, it came down to a simple choice, as had been spelled out by the Bursar, Gus Ward, as far back

as 1974: 'If we are to have a magazine at all of the present type, we have to pay the current rates for its production and postage'. Fortunately the college overcame its miserly instincts and accepted that the *Magazine* needed to be more than a mere newsletter, even if that meant subsidy.

The cover of the first instalment of the Magazine, *May 1889*

Although the content of the *Magazine* has not changed fundamentally since its inception, its appearance has of course undergone many changes. The original cover design, which was used until 1911, consisted of the title, placed diagonally and the Emmanuel lion, printed in blue ink on buff-coloured paper. A new cover design, consisting of black title and crest on grey sugar paper, was introduced in 1919–20 and this in turn was superseded by a

blue, slightly less coarse paper in 1972–73. Budgetary constraints meant that the *Magazine* consisted almost entirely of text; a frontispiece was occasionally included (most often a photographic portrait of a Master or Fellow), and from the 1930s there was usually an internal photograph or two, showing perhaps a winning Cuppers team or renovations to a college building, but otherwise there was very little to illuminate the *Magazine*'s contents or attract the eye. By the early 1990s it was clear that a radical overhaul was needed and the necessary changes were set in train by the principal editor, Dr Sarah Bendall. These included engaging the services of a commercial designer, with the result that the 1991–92 issue looked completely different from its predecessors. The new features included a glossy pictorial cover, 'Perfect' binding, an attractive new font, an improved layout and a wealth of internal illustrations. One Emma member expressed disapproval of the changes ('No, I do not like the new look. Why this glamour? Should our universities follow every trend of the day?'), but otherwise the response was very favourable.

It was not only the *Magazine*'s appearance which was transformed but also its contents, which had become rather formulaic and were in need of rejuvenation. Many volumes of the 1970s and 1980s were distinctly dry in comparison with the lively numbers of earlier years and it is difficult to imagine Emma members opening their copies with great enthusiasm (although special mention should be made of Dr Frank Stubbings, College Librarian, who regularly contributed interesting articles on Emmanuel's history). The 1991–92 issue set the tone for all succeeding volumes, for the regular sections were expanded and made more informative and entertaining, while the number of articles contributed by Fellows and members, including junior ones, was increased and their scope widened to include subjects likely to appeal to a greater number of readers. Lord St John of Fawsley had been elected Master in 1991 and since he certainly did like a touch of glamour, he gave the new-look *Magazine* his full support. He invariably penned, in his inimitable style, the opening review of the year, a feature which morphed into 'From the Master' and became a permanent fixture.

Emmanuel once again had a magazine of which it could be rightly proud.

What of the future? Given the *Magazine*'s constancy of purpose, it seems reasonable to suppose that there will be a bicentenary volume of some sort, perhaps of a very similar sort. Although various electronic means of communication between the college and its members have been developed in recent years, and while the college's website plays a crucial role in keeping Emma members abreast of college news and forthcoming events, the *Magazine* retains its unique importance as a permanent annual record of college life. As a resource for historians of Emmanuel, it is invaluable. Although the exuberant young cub of 1889 is now a fine, fully-grown lion with a sprig of his own (the *Emmanuel Review*), the high-wrought sentiments he expressed all those years ago have surely undergone little change. It is to be hoped therefore that the *Magazine*, in whatever form, long continues to record the 'composite melody' of Emmanuel.

Amanda Goode, *College Archivist*

The Year in Review

From the Master

Easter term in Emmanuel is always special. The library is crammed to capacity, the swimming pool is in much demand, the paddock resounds to the thud of tennis balls, and we all pray for sunshine on graduation day.

This year has seemed more intensely special than ever, because the sun started shining in April and at the time of writing in late July has barely stopped. The pool has become (almost) warm, the grass is parched and dry, and graduation day was so hot that our students' families sought every bit of shade in sight. By the end of July we were all praying for rain, and could hardly remember the Beast from East that terrorised us in March!

We're all saying we feel busier than ever, and so it seems in life. But there are two reasons why that's felt particularly true this year. First, there is ever more government intervention in higher education, so Cambridge as a university, and Emma as a college, must demonstrate that we're meeting a range of publicly set targets: the Senior Tutor describes the implications for Emma in his piece, below. And second, we're getting ready for the biggest change for Emma since the acquisition of Park Terrace in the 1980s.

Having secured our new site, behind South Court, we have begun to put our plans for its use into action. Our first step was to undertake a needs assessment and draw up a masterplan, to ensure we are clear about our priorities for the use of the site, followed by the appointment of architects to work with us to realise our ambitions. Following a tender and shortlist/interview process, we are delighted that Stanton Williams will be our partners. A London practice, they have designed a number of very successful buildings in Cambridge, including the award-winning Sainsbury Laboratory near the Botanic Gardens, and the new extension to the Judge Business School. We are excited to be working with them and will spend the autumn considering options and consulting on designs, before preparing detailed plans.

In a much quicker transaction, and thanks to the skill of our Bursar, we were successful in re-purchasing the head lease of what

is known as the Prudential site, next to North Court, which was sold by the college in the 1950s. The property will form part of our investment portfolio for the foreseeable future, and it is very satisfactory to have re-gained control over a key site adjacent to the college. The Bursar writes about this transaction below.

This year has seen the usual crop of comings and goings, with turnover among our Research Fellows faster than usual as Clara Devlieger (our joint Smuts anthropology Fellow) is moving to a post at the London School of Economics, Vikas Trivedi is taking up a post at the European Molecular Biology Laboratory in Barcelona and Aja Murray is taking up a post at Edinburgh University. They are all leaving early; three other Research Fellows have completed their terms: Johannes Carmesin is moving to take up a post at Birmingham University, Pavel Gola is going to Oslo University, and Tobi Wauer has a post-doc post in Cambridge and has been appointed to a Bye Fellowship here. We thank them all for the enormous contribution they have made to the college. We also congratulate Research Fellows Simone Kotva on the birth of her daughter, Freja; and Emma Yates and Clara Devlieger on their marriages.

Mike Sayers retired as the College's Head of Information Systems and became a Life Fellow; and Clive Gatford retired after 33 years as College Accountant. We are very grateful to them both for all they have done for the college. We celebrated Professor Brian Thrush's ninetieth birthday with a special dinner in July.

We celebrated a number of promotions among our Fellows: Catherine Pickstock was elected the Norris-Hulse Professor of Divinity and Nick White appointed to a personal Chair as Professor of Nineteenth-Century French Literature and Culture. Phil Howell, Finian Leeper and Anurag Agarwal were appointed to Readerships, and Thomas Sauerwald to a Senior Lectureship.

Next term we will welcome as new Research Fellows Koji Hirata (history), Matthew Leisinger (philosophy) and Scott Melville (theoretical physics); the new Mead Fellow is Daniele Cassese, while our new John Coates non-stipendiary Fellow will be Pallavi Singh, who works with Julian Hibberd on the genetics of rice. We elected as Honorary Fellows Edith Heard, the incoming Director of

the European Molecular Biology Laboratory and Andrew Pfetter, President of Simon Fraser University in Vancouver.

As usual we have had a lively series of events in college this year, including the launch of Jeremy Musson's architectural history of Emmanuel, *Between Two Worlds* and a fabulous Gomes lecture by Adam Nicolson on the subject of his book *The Seabird's Cry*, a moving account of the decline in many of our charismatic and intriguing sea birds that is printed later in this *Magazine*. Among other highlights James Fox gave a brilliant illustrated talk at Leighton House in London, 'Blue': a colour that fascinates him as an art historian and which succeeded in fascinating all of us, too. Professor Hugh Hunt gave a wonderful talk on the first night of television broadcasting, giving us the story behind those early images.

Our gatherings this year were for the 1978–80 and 1970–72 generations: both were great fun! Many more events have been organised by the Emmanuel Society, which runs one of the liveliest alumni societies in Cambridge. From London drinks to lectures, talks and dinners, visits to places of interest and family gatherings, there is something for everyone and all their events are well attended.

Our students continue to work hard and also to enjoy their wider activities. Our 2017–18 *University Challenge* team, consisting of Edmund Derby, Kitty Chevallier, James Fraser and Alex Mistlin reached the quarter-finals, and Bobby Seagull, 2016–17 captain and now a PhD student here, continues to coach, cajole and encourage our students to be *University Challenge*rs. We've just learned that we have a team competing in 2018–19 and wish Connor MacDonald, Vedanth Nair, Dani Cugini and Ben Harris the very best of luck.

In sport, two of our members row with the university: Freddie Davidson, a second-year engineer, stroked the successful Cambridge Boat Race crew and graduate student Abigail Parker is president of the Cambridge University Women's Boat Club. Jess Godden, who came up last October to read natural sciences, will be captain of the women's Lightweights for 2018–19. In the May bumps three crews won their blades, a fantastic achievement. We

had five members of the successful rugby Varsity match teams too: Stephen Leonard and Mike Phillips played for the men and Laura Nunez-Mulder, Emily Pratt and Sophie Farrant for the ladies. Helen White won windsurfing Cuppers for Emma and a team of Robbie King, Josh Flak, Bella Padt and Cat Wallace won team racing Cuppers, with Robbie sailing on the victorious Varsity team, Cat captaining the Cambridge team and Josh sailing on the Royal Thames team that won the Cumberland Cup.

I've enjoyed meeting Emma members at home and abroad during the year. Last October I spoke at the Cambridge Society's annual dinner in Edinburgh. We just dodged the snow in the UK and US in March, when Sarah Bendall, my husband Bob and I made a short visit to New York to meet members there and nearby. As I write we are looking forward to further travels later in the summer, when we visit Hong Kong, Auckland, Sidney, Singapore and Delhi.

In short, it has been another busy, lively and effective year. We are on the cusp of great changes, but the essentials of Emmanuel remain at the heart of what we do: a high-performing, beautiful college with community at our heart.

Fiona Reynolds, *Master*

From the Senior Tutor

It is August Bank Holiday Monday. My procrastination needs to be conquered and I must put my thoughts in order to enable me to tell you something of what has being going on at Emmanuel over the last year. The Master, Bursar and Development Director have written their contributions and what is perhaps most striking over the last 12 months is that things are happening that are outside the normal run of year-to-year activities: not only our planning to raise funds to develop educational and support activities as well as physically to develop the site to the south of South Court, but also the

college's unexpected and remarkable acquisition of the lease to St Andrew's House, which we though was out of our grasp until 2107. Mike Gross explains the details in his piece.

With articles by three other people to inform you, I have plenty of opportunity to stick to matters of particular concern to Senior Tutors; matters that affect and are affected by Emmanuel, the wider university and beyond. One of the things that I wrote about at some length last year was the admissions assessments that had been introduced in 2016 following the reform of A-levels. These operated once again last November, with some refinements for the new admissions round. The indications from the first iteration of the assessments in the preceding year are that the outcomes of the assessments mapped well, for most subjects, upon attainment at A-level. It now remains to be seen how closely they prove to align with tripos performance (we will not know for a few years yet). A strong correlation between Year 12 AS-level Uniform Mark Scheme (UMS) scores – no longer generally available to us as a result of A-level reform – and tripos performance was what made those scores so valuable to us in selection of students. It has to be said, though, that we were pretty well alone among universities in attributing such importance to UMS (but then again, as I described last year, most of our applicants have very high A-level predictions so they alone are insufficient discriminators). With the new A-levels, we remain in a learning phase (as do schools). Probably because of the novelty of the examinations to everyone involved, in 2017 we (and all other colleges), saw more than usual offer-holders failing to attain the grades predicted by their schools, which gave Admissions Tutors all over Cambridge a more complex task during A-level week in 2017 than they had been used to. Indications from the A-level results published two weeks ago are that this may have been a short-term problem, but things continue to change, as for future admissions we will soon be seeing on application forms the new grades for the reformed GCSE examinations.

Besides changes to examinations and our response to those changes, I also wrote about the various forms of monitoring and

assessment to which higher education institutions are subject. Have things moved on here? Yes. The Office for Students (OfS) has been created, is in operation, and has completed the approval process of registration of universities as 'registered providers of higher education'. This is important, because non-registration makes it pretty well impossible for universities to function as universities (without registration they could not, for example, apply for Research Council funding, apply for visas for overseas students, award degrees or even call themselves a university). You will be pleased to hear that the University of Cambridge has been registered as a provider. While that may not be a surprise, it is not as straightforward as it sounds, as the registration is dependent upon meeting a number of benchmarks, notably in promoting 'access' and widening participation, and any renewal of registration may be contingent upon a number of conditions applied by OfS. This is of great significance. Access to higher education is important to society and access to Cambridge (and Oxford and other universities) is of concern to OfS and of disproportionate interest to the media. Each year, Cambridge University sets out an 'Access and participation plan' (published in the 'Find out more' part of the 'Undergraduate study' section of the university website). This outlines how it intends to attract and support students in applying to and studying at the University of Cambridge, and how it applies its admissions processes; the principles contained in this document informs the university's interactions with OfS. It is worth looking at, not least because it encapsulates the challenges and opportunities that the university and colleges currently face, as does the area of higher education in general.

'Access' is a very difficult matter, not least because there are many ways in which it can be measured. Classically, this has been achieved by looking at the ratio of applicants to acceptances among applicants coming from either maintained or independent (fee-paying) schools. The percentage of applicants admitted should be congruent with the proportion of those taking A-levels and so on at the different types of school. This would be fine if the level of

educational opportunity and attainment were uniform, but it isn't. There are many good independent schools and there are many good maintained schools, and these schools tend to get good exam results. The proportion of independently educated school students is relatively low in national terms, about 6.5 per cent, but across the country around 30–35 per cent of those reaching the level of academic attainment at school necessary to be competitive in the overall field of applicants to Cambridge come from independent schools. Using this evidence base, one could say that we should be admitting 30–35 per cent of home students from independent schools and 65–70 per cent from maintained (actually, that is close to what happens), but it is not as simple as that. Among the good schools, there are very good independent schools and very good maintained schools, leading to a relatively small number of schools, regardless of sector, regularly seeing significant numbers of applicants to Cambridge. Some of these get in and some of them don't. Some of the applicants may have benefited from having been at a particular school and would perhaps, in a less accomplished institution, not have performed to their evident potential, so the field of schools of any type from which applicants to Cambridge tend to be drawn is much narrower than one might wish. Equally, it is probably impossible to know how a relatively strong applicant from a lower-performing school, who falls short of our entrance requirements, would have performed at a higher-performing one.

The issue of school type is one measure that can be examined. Another is regional disparity in applications. Links to the statistics can be found on the university's 'Undergraduate study: find out more' web-page (www.undergraduate.study.cam.ac.uk/apply/statistics). For 2017 entry, 62 per cent of Cambridge's 10,938 UK applicants came from London, the South East or the East of England (those regions account for 36 per cent of the UK population). By comparison, the North West, East Midlands, West Midlands, and Yorkshire and the Humber regions combined have a similar proportion, making up 35 per cent of the overall UK population, yet they yield only 25 per cent of the applicants.

Putting aside the possibility that applicants may not like to stray far from home when considering universities, regional disparities in applications should not be so stark. Broadly speaking, the UCAS figures for the same period for all universities do not show a comparable disparity in applicants for the regions described. It is worth bearing in mind that a 'College area links scheme' was introduced in Cambridge in 2000, associating each college with one or more area of the country, to target better access efforts (ours are Sheffield and Essex), and while many resources remain devoted to this initiative by all the colleges, it could be argued that new ideas might help.

We thus have school type, school performance and where the school might be situated to feed into who applies to and hence stands a chance of getting into Cambridge. Besides regional and school data, the university also includes numbers on applicants with disabilities as well as statistics broken down by gender, but I should address another aspect of access, that of ethnic diversity. Very detailed information about applications and their outcomes (to the university), broken down by ethnicity, are given in the 'Undergraduate admissions statistics: 2017 cycle' to be found at the link above, but briefly, some groups have more success in applications to Cambridge than do others. Applicants declare their own ethnicity to UCAS, and the colleges and university do not have access to this information at the time of application or during the admissions period. It turns out that in terms of ethnicity, the most successful last year were applicants who self-defined as 'Gypsy or Traveller' at 50 per cent (but there were only two such applicants to the university and one of them was successful). Next, was 'Mixed – White and Asian', with 354 applicants and a 29.1 per cent success rate. The group showing the lowest proportion of applicants and of acceptances is 'Black or Black British – Caribbean', with 58 applicants and 12.8 per cent success. There are 17 listed groups and the overall success rate was 23.9 per cent. Explaining and addressing disparities in application rates, let alone success rates, is something that needs to be addressed with some urgency, not only by the colleges and the university, but beyond.

What can be done? First, in applications we are increasingly using contextual data, derived from publicly available sources. These comprise a database of the socioeconomic characteristics of the applicants' local areas, and the proportion of individuals progressing to higher education in them. Next we look at school data: the GCSE and A-level performance, and recent history of entry to Cambridge or Oxford of an applicant's school or college. A third element comprises data on individual circumstances: whether an applicant has spent time in the care of a local authority (this is declared on the UCAS application) or whether they have been eligible for free school meals, and any information provided in a form giving extenuating circumstances that can be submitted directly to Cambridge. The socioeconomic data are of particular interest to OfS and targets taken from these measures form part of the university's access agreement made with OfS.

You will note that there is much to do. Access is a worthy aim and the pressures brought by OfS are, to a great extent, beside the point. Emmanuel needs to play its part in raising accessibility to Cambridge and to participation in higher education. In the *Emmanuel Review* I have written about our recent partnership with Villiers Park, which is an educational charity supporting social mobility by running residential programmes that target young people from less advantaged backgrounds so they can reach their full potential. This maps onto our area link with Essex. Our Schools Liaison Officer, Elle McCluskey, with one of our Admissions Tutors, Corinna Russell, are our main points of contact with Villiers Park and most of the rest of Elle's time is occupied with access events in Cambridge and on visits to Sheffield and Essex. The four Admissions Tutors also undertake school visits and host them in Emmanuel and Fellows make contributions to subject-based events. It is important to note that our efforts (and those of Villiers Park) are not devoted solely to raising participation from a solely Cambridge perspective but to encouraging and empowering young people to aim for higher education as a goal in itself. More needs to be done, though, and much of the effort over the next few

years will require collaboration with other colleges and the university to address the complex issue of fair access.

Robert Henderson, *Senior Tutor*

FROM THE BURSAR

I am very pleased to report that in March the college completed the purchase of the head lease at St Andrew's House. That such a detail of commercial property management should be the headline event of the bursarial year probably needs a little more explanation.

St Andrew's House is the large block of shops and offices built in the 1950s that forms the corner of Emmanuel Street and St Andrew's Street. Along the street frontage the building includes Savino's, the home-from-home of Emmanuel Fellows and students, Nat West, which occupies the corner facing our kitchens, and all the shop units on St Andrew's Street down as far as HSBC. But, most significantly, the property borders North Court and there will certainly be an opportunity in the future to bring part of St Andrew's House into direct college use. It is easy to imagine a future scheme that would create a route from the Cloisters in North Court up to a first-floor courtyard above the existing retail units and from there giving access to new student rooms or other college facilities in place of the current commercial office suites. However, in the short- to medium-term St Andrew's House will be a part of our commercial property portfolio and the investment income from the retail and office sub-leases will help to fund our academic and educational activities.

What is particularly interesting about St Andrew's House is that we already own the freehold of the site. In 1954 the college agreed to lease the site for 153 years to the Prudential prior to the current building being constructed there. It is fascinating to think of my predecessor as Bursar reaching that decision about the head lease, with the rent to be received by Emmanuel then to be fixed at

the level of a few thousand pounds annually for the next 153 years. That fixed rent from the head lease now appears inexplicably low, just as no doubt the capital sum we have paid to buy back the head lease would have seemed in 1954 to be utterly astronomical.

The financial decisions that the college makes today very often interact with the decisions taken by our predecessors. We are currently looking at opportunities to develop part of a farm in Kent that was given to Emmanuel in the early eighteenth century. In Sutton Coldfield we will soon need to decide on the future management of some properties where long leases are about to end, those properties having been built in the early twentieth century on land that the college has owned since its foundation. In managing our endowment, the sense of our continuing stewardship and the responsibilities that are passed from one generation to the next is very strong. Inevitably what goes along with that is a desire properly to understand the thinking that lay behind the key financial decisions that were made by Bursars and the Governing Body decades or even centuries ago.

While the rent set on the St Andrew's House long lease in 1954 was not a peppercorn, it had declined so far in real terms by 2018 as to feel as if it was. So why did Bobby Gardner, the Bursar in 1954, enter into such an arrangement? He was certainly professionally advised, he would have taken into account the future effects of inflation, and at that time a college issuing a long lease in central Cambridge would also have required the approval of the appropriate Government ministry.

I think the answer is that while the rent figure chosen would have reflected the market rent at that time on an undeveloped site, Bobby Gardner knew that the building to be erected there by the Prudential would become a hugely valuable asset for the college in 153 years' time. He was therefore reaching a decision in 1954 that, while it would provide some immediate income for Emmanuel, would only pay off fully in 2107. It is hard to imagine a better illustration of the long-term stewardship and the interaction between generations that comes about because of the permanence of Emmanuel as an institution.

Bobby Gardner probably did not expect that by 2018 the central Cambridge property market would have changed so dramatically that an opportunity would arise for the college to repurchase the head lease on attractive commercial terms. In so doing we have changed his plans a little. We are benefiting from his foresight just a little sooner. The rental income we will now receive is now very much higher than could have been imagined in 1954 and, instead of waiting until 2107, our successors will have the option of bringing part of the site into direct college use in perhaps only another 30 or 40 years. While this time horizon might be slightly different to that envisaged by Bobby Gardner, I hope we are following his example and acting now to pass an equally valuable opportunity on to a future generation.

Mike Gross, *Bursar*

The College Library

By the end of last year 1000 early printed books had been catalogued as part of the rare book cataloguing project. The project has temporarily been put on hold this academic year and is due to recommence in 2019. In the interim, work on other collections is taking place. Full bibliographic records for liturgical works in Latin, Greek, Hebrew and other languages have been produced for the liturgy *classis* in the library of Archbishop William Sancroft. These bibliographic records are now available in Liberty, the college library's local catalogue (which contains the full master records,) and in Alma, the University Library's catalogue. Work is also being carried out on the de-duplication of our bibliographic records in Alma, plus record enhancement.

Throughout the past academic year the library has received many generous donations of books by members and others. We wish to acknowledge our grateful thanks and appreciation to everyone who has donated publications. Among the many donors were:

Dr Alan Baker, Mrs Thelma Barlow (English literature and art history books from the collection of her late husband Christopher Barlow (1958) and presented in his memory), Alys Donnelly, the Revd John Drackley, a collection of classics books from Adrian Gombault, Ian Hewitt (French and Italian books), Danyi Liu, books and coins presented by Nancy Milton from the collection of Robert C (Peter) Milton (1956), Archie Norman, Dr John Pickles, Jonathan Spencer (Derek Brewer Visiting Fellow, Easter term 2017), Lucy Talbot, Dr Rosy Thornton and Michael Young.

The following presented copies of their own publications:

Karen Attar (editor with Christopher Pressler), *Senate House Library, University of London* (2012); Dr Alan Baker, *A French Reading Revolution: The Development, Distribution and Cultural Significance of 'Bibliothèques populaires', 1860–1900* (2018) and *Amateur Musical Societies and Sports Clubs in Provincial France, 1848–1914: Harmony and Hostility* (2017); Professor Peter Burke, *Knowledge, Culture and Society* (2017); Archbishop Peter Carnley, *A Kind of Retirement: More Sermons from Archbishop Peter Carnley* (2016); Richard Davis, *Construction Insolvency: Security, Risk and Renewal in Construction Contracts,* fifth edition (2014) and sixth edition (2017); Professor David Hughes, 'Harry Billson Howe, first junior warden of the Holmes Lodge and third Worshipful Master, first Z of Holmes Chapter, Primus Master of the Lodge of Gratitude, hosiery-maker and Leicester's own James Bond, or maybe Richard Hannay?' in *Transactions of the Lodge of Research*, **2429** (2016–17); a set of books by Dr Jeffrey Hui on management and marketing; Garry Martin, *Of Love and Gravity* (2018); Scott Mead, *Above the Clouds* (2017); Richard Powell, translator of Jorma Ollila's and Harri Saukkomaa 's, *Against all Odds: Leading Nokia from Near Catastrophe to Global Success* (2016); Derek Prime, *A Good Old Age: An A-Z of Loving and Following the Lord Jesus in Later Years* (2017); Peter Reason, *In Search of Grace: An Ecological Pilgrimage* (2017); Michael Simmons, *Double Exposure* (2018); Alice Strang (editor), *A New Era: Scottish Modern Art 1900–1950* (2017); Dr Christopher Whitton (editor, with Alice König), *Roman Literature under Nerva, Trajan and Hadrian: Literary Interactions, AD 96–138* (2018); James O Wilkes, *Fluid Mechanics for Chemical Engineers*, third edition (2018), Alan Wilkins, *Roman Imperial Artillery: Outranging the Enemies of the Empire*, second edition (2017), Dr Carol Williams (with Jane Kingsbury), *Cambridge University Women's Boat Club 1941–2014: The Struggle Against Inequality* (2015); and Will Wyatt, *Oxford Boy: A Post-War Townie Childhood* (2018).

Special Collections

Many enquiries about the college's collections of early printed books and manuscripts have been received this academic year. Both researchers and students have also come in person to consult the collections in the library. Enquiries have included MS 106, a fourteenth-century manuscript that includes devotional tracts and prayers; the *Poems and Fancies* of Margaret Cavendish, Duchess of Newcastle; William Bedell, seventeenth-century visitation articles; Adam Smith's *Wealth of Nations*; the Cyril Northcote Parkinson collection; Cambridge Platonists; Sir Walter Mildmay's books; Joshua Barnes's manuscripts and Archbishop William Sancroft.

Basil South (1957) very generously presented an exercise book of notes on Russian grammar, transcribed and arranged from the lectures of Brian Toms (later Professor of Russian at Oxford University) at the London University School of Slavonic and East European Studies, and which has been added to the special collections.

Special Collections Lectures

Two lectures took place this academic year. In Michaelmas term David Pearson spoke on the revision of his provenance handbook. This was followed in Lent term by Françoise Richard, who gave a talk on rare Chinese printed books held in Cambridge college libraries.

Events and Exhibitions

On Sunday 24 September, on the occasion of the Gathering of Members, the library and Graham Watson Room were open. The Keeper of Rare Books gave a talk entitled 'Travels in search of the picturesque', illustrated with images from books in the Graham Watson Collection. An accompanying exhibition 'In search of the picturesque: the influence of William Gilpin on travel and landscape art' was on display in the Graham Watson Room and atrium. In addition a selection of books from the library's Cambridge Collection was on display in the atrium.

The Graham Watson Room was open again in February on the occasion of the 1584 dinner, when treasures from the College archive were put on display.

In Easter term a series of illustrated books from the Graham Watson Collection, *Britain in Pictures,* was exhibited in the atrium. This series was designed as propaganda during the Second World War to promote Britain.

Conservation work

Conservation work on both early printed books and manuscripts was carried out by the Cambridge Colleges' Conservation Consortium. Joint and text-block repairs were made to S1.3.38 (from the Sancroft Collection) and Rare Books 305.1.60 and 304.4.74; Rare Books 304.4.26 and 329.7.111 in limp vellum bindings were repaired.

The project to construct drop-spine boxes and phase boxes for the library's collection of manuscripts came to an end this academic year when the remaining donations were used up. Approximately one-third of the collection has now been boxed.

Helen Carron, *College Librarian*

The College Archive

2017–18 has been another averagely busy year for researchers and accessions. Visitors' topics of research, excluding genealogical enquiries, have included: New England Puritan ministers (Thomas Shephard and Thomas Hooker), the history of Emmanuel's gardens, John Harvard, William Sancroft the younger, the architecture of the 2010 library extension, Thomas Young, Samuel Blackall (admirer of Jane Austen), student life in the 1970s, Harvard scholars, the Old Library, the Cambridge Platonists, Royal visitors to Emmanuel and Graham Chapman (of Monty Python fame). Phil Brown (1964) has finished working on the detailed index to Emmanuel's collection of First World War letters, which has already proved to be an extremely useful research tool. He has also continued the task of compiling brief biographies for all the men who were killed in the two world wars: the First World War section is complete but that of the Second World War requires more work, particularly using online sources, as there is less surviving documentation in the archives. It is intended that the biographies will be added to the college website and in due course we also hope to add photographs of as many of the Fallen as possible. Phil's First World War article 'Three future Fellows' appears elsewhere in the *Magazine*.

Accessions of original archives, artistic works and printed material have been received this year from: Robert Anderson, Hazel Bennett, David Brittain, Philip Brown, John Copping, Belinda Hallam, the late Geoffrey Hinton, Jessica and Gareth James, David Jenkins, the Jesus College archivist, Nigel Kenyon Jones, Caroline Monk, Frank Noah, Dr John Pickles, Michael Starling, Professor Brian Thrush and Professor James (Jim) Wilkes. Thanks are due to all donors, many of whom are Emma members or their relatives. The usual transfers of material from the various college departments took place.

Nigel Kenyon Jones gave us a Mildmay Essay Club photo for 1937 in which his father, Ronald, appears, as well as a collection of

memorabilia from his own time here (1970–73). Michael Starling donated a collection of undergraduate lab books compiled by his father, Richard (Dick) Starling (1949), offprints of articles written by Dick during his career as an aeronautical engineer, and his own memoir of his father. Several artistic works were received this year. David Brittain (1966) has given us an addition to the wonderful collection of Joseph Wolf pictures he generously donated to the college in 2008: the new item consists of three charming small pencil sketches of foxes (including a fennec) and a wolf, mounted as a set. Hazel Bennett gave a collection of archives and photographs relating to her father, William Marshall Bennett (1931) and also an etching of Front Court by M Oliver Rae (the pseudonym of artist Mabel Oliver) that had belonged to him. Frank Noah (1993) gave three framed engravings of the college.

Heraldry at Emmanuel: images from the early seventeenth-century Benefactors' Book

In June 2018 a Year 10 student from a local school was based in the archives for a two-week work experience placement. The student, Alexander, carried out a variety of tasks including the digitisation of a typescript booklet on Emmanuel heraldry compiled some years ago by Dr Frank Stubbings; Alexander also took many photographs of the heraldic carvings and stained-glass panels to be seen in various parts of the college, as well as the coats of arms depicted in the early seventeenth-century college Benefactors' Book, some of which are reproduced above. It is hoped that when the text of the booklet has been revised and expanded by the

Archivist, the new version, with illustrations, will be made available on the college website.

The archives hosted a one-day exhibition on 13 June, entitled 'Treasures of the archives' and open to all students, staff and Fellows. The display included some of the most precious and historically important documents held in the college archives, the earliest of which dates from the mid-twelfth century. Many of the college charters were on display and it was interesting that visitors seemed to find the seals even more fascinating than the calligraphy or illumination (the royal 'Great Seal' is admittedly large and impressive). Maps, architects' drawings and Victorian photographs proved predictably popular and it was suggested by several visitors that these could form the basis of more specialised thematic exhibitions in future years.

Also on display in the 'Treasures' exhibition were six drawings, made in 1904 by Edward Woodall Naylor, College Organist and later Life Fellow, which had recently undergone conservation at the laboratory of the Cambridge Colleges' Conservation Consortium. It may be remembered that the discovery of these drawings in at the bottom of a wooden box in the Old JCR, where they had languished for perhaps a century, was reported in the 2011–12 *Magazine*. Their condition was appalling, for the paper used was highly acidic and liable to fragment at a touch, and the drawings, which had been loosely rolled, had moreover been crushed by other (unrelated) papers added to the box in the 1950s. Their condition was so bad, in fact, that if they had not been of significant historical interest the college would not have considered having them conserved. They comprise poster-size sketches of early musical instruments and musicians, used by Naylor as lecture aids; all are signed and dated by him. The Consortium described the process of piecing together the many hundreds of fragments as 'a truly mammoth task' but the results have been very successful, as attested by the photographs reproduced at the end of this article. In addition to the six drawings that have been conserved, the wooden box also contained a quantity of related sheet-music, hand-drawn by Naylor, which presumably illustrate points of

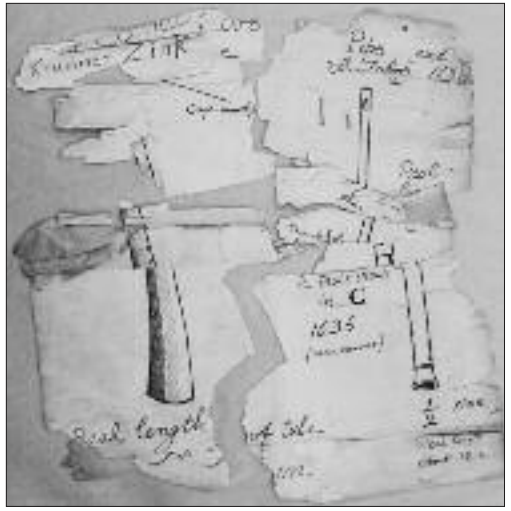
musical significance. Although these, too, require some conservation before they can be consulted, they are fortunately in much better condition than was the case with the drawings.

Edward Woodall Naylor in about 1898

Some of the visitors who viewed the conserved Naylor drawings at the 'Treasures' exhibition remarked upon their lack of artistic merit. The truth of this cannot be denied, although as one critic did go on to observe, it is unreasonable to expect an individual to embody both musical and artistic flair. The drawings are nevertheless of unquestionable and two-fold significance: first, lecture aids of any sort are extremely rare survivals, and as far as

our archives are concerned, these ones are unique; secondly, Naylor himself was a very important figure in the history of early music, for he was one of the leading lights in its revival following a long period of obscurity. He was a graduate of Emmanuel and received his MusD in 1898, the year he was appointed College Organist with a lectureship in music (the first to hold such a post and for many years the only one in Cambridge). The college made him an Honorary Fellow in 1920 and when the university's faculty of music was created in 1925 Naylor was appointed a university lecturer. He was a fine organist and a composer of some note, and did much to promote musical events in Cambridge. Particularly interesting, in the context of these drawings, is the fact that he was also, by all accounts, a skilful and popular lecturer.

Amanda Goode, *College Archivist*



Naylor drawings before and after conservation

From the Development Director

When Sir Walter Mildmay founded Emmanuel in 1584, his aim was to establish a leading educational institution at the forefront of learning and preaching in the reformed church. In the past year, we have been thinking hard about his legacy as we develop our plans for the future to ensure that Emmanuel can continue lead the way in the twenty-first century.

We have a secure foundation to work from, with many loyal friends and members. We've seen many of you – around 1300 or 12 per cent – this year, in college, in London, Oxford and elsewhere in the UK, and overseas. Several of you have joined us for dinner at High Table and we've much enjoyed welcoming you, whether you've been visiting by yourself, or as part of a larger group. We've had two Gatherings of Members (1978–80 and 1970–72), at which it was lovely to see you all renewing friendships and making new ones. Other highlights of the year have included the two launches of Jeremy Musson's architectural history of Emma *Between Two Worlds* in college and London; a dinner in Exeter College Oxford arranged by the Emmanuel Society; a fascinating discussion in college about medical ethics, followed by a sing- and play-through of Handel's *Messiah* during the society's day in college in November; an advent carol service at the Temple Church in London led by the Chapel Choir and attended by well over 200 people; three Burnaby recitals; a supper party in New York; a reunion of the Chapel Choir where former members of the choir joined the current students to sing evensong; the Emmanuel Society's lecture on a true Emma colour, 'Blue', given by James Fox (2001) at Leighton House in London; a visit to Stowe House; and a special High Table for those who matriculated in 2010.

I normally watch the weather forecast anxiously as our summer events approach: will it rain? That wasn't a worry this year, and we were confident to confirm the outdoor arrangements for both a tea party in the Master's garden for members who live near college and their families, and the Emmanuel Society's garden

party in July, at which the swimming pool was particularly popular. At the end of August the Master, her husband Bob and I are off to visit members in Hong Kong, Auckland, Sydney, Singapore and, for the first time for us, Delhi: we're looking forward to our trip hugely and the flights will give me plenty of time to copy-edit this *Magazine*. Nick Allen, chairman of the Emmanuel Society, and his committee work tirelessly to put together a full and varied programme for all to enjoy.

Your support and enthusiasm for attending our events is very encouraging, as is also your financial support. Your generosity this year – over £5 million has been raised in donations – has had an enormous impact on what we can do, who we can help, and how we plan for the future. All students have benefited from your support, either directly or indirectly. About one-quarter of them have received grants and financial help this year to enable them to take full advantage of all that Emma has to offer, without which they would have had to turn down opportunities. Some received monies to alleviate financial hardship, others were given help to go on placements in the summer, a number were enabled to take part in charitable projects, and more participated in sporting, musical or dramatic activities thanks to help from the college. Donations enabled 12 graduate students to come and study at Emma, or to remain here at the end of their undergraduate courses. For some students what might seem like a small sum to you – perhaps £15–£20 – made all the difference; others received hardship grants of £5000; while a fully funded graduate student might have been given nearly £20,000. We were delighted to welcome a new Benefactor Fellow this year: the donor's gift is being used to enable graduate students in the arts to come and study at Emma, an opportunity her late husband would dearly have loved to have had himself. After a working life, it was not until he was 87 that he managed to put together the materials to be awarded a PhD.

Your generous help has given us confidence as we think about the ways Emmanuel can take forward Sir Walter Mildmay's vision and continue to be a leading place of education for current and future generations. We have exciting plans to be at the forefront of

the colleges as we think about strengthening both our social and our intellectual community, and maximising the potential of our site. Our plans include transforming the southern end of Emma, bringing it into the heart of college life and creating beautiful courts and green spaces. Then we will be one of the few colleges that can accommodate all undergraduates on the main site, within five minutes' walk of each other; we are also thinking about how best to prepare our students for life beyond Emma and whether we can put together a programme of events to help them; and we are planning to have a place where all members of our community can meet and work informally. Our intellectual community will be strengthened as we develop a way to welcome more post-docs to membership of Emma: these are early career academics on short-term funding who drive Cambridge's research but 90 per cent have no college home. We are determined for our community to become properly representative of the wider university as around 100 post-docs at any one time will be Emma members, with all the benefits to them and us that this will bring, and we will be one of the few colleges addressing this issue at this scale. We also plan to increase and develop our outreach activities – this year's partnership with the social mobility charity Villiers Park has been a good start – and we want to be able to help fund more graduate students in the future.

We are able to think like this because of the opportunity to buy Furness Lodge and the adjoining car park from the university, enabling us to provide new facilities, rooms and a student centre there. In June we appointed as architects for the project Stanton Williams, a leading London firm who specialise in designing contemporary buildings that are sensitive to their cultural, social and physical context. After extensive consultations in the Michælmas term, they will work during 2019 to draw up plans to help us realise our vision.

At the same time, we are thinking about how to make the most of this opportunity: such chances only come once in a generation, if that. We are heartened that so many of you support us: 34 per cent have made a gift to Emma, and 25 per cent in the last year.

While of course substantial gifts are extremely welcome and without them our dreams cannot become a reality, nor can we be successful without help from everyone. Thus the 87 per cent of your gifts last year that were of less than £500 are very valuable to us, and the fact that 71 per cent of you who spoke to our students on the phone last January agreed to make a donation is very encouraging. Without the warmth of support from our membership we would not receive the larger gifts and we thank you all most sincerely. Some of you manage to come to our annual parties for donors in London – we were in the Barber-Surgeons in 2017 – and we hope we will see many more at our garden party in college next summer, but hope you all realise how welcome and encouraging your support is to us.

We are always keen to hear your thoughts and suggestions, and will let you know as our thinking develops and how you can help us. You will continue to hear from the Master, myself, and Samantha, Lizzie, Mary and Linda in the Development Office. This year we've been joined by Dan as Development Assistant, and we're looking forward to welcoming Emily as Deputy Development Director and Harriet as Regular Giving Officer in the autumn. Whichever one of us is in touch and in whatever way, whether it be in the *College Magazine*, *Emmanuel Review* or termly newsletters, or through digital technologies via our monthly e-news, Facebook, Twitter or Instagram, there is always a friendly face and welcoming smile, as we keep and enhance the very special Spirit of Emma. May we lead the way in the twenty-first century as our founder did in 1584.

Sarah Bendall, *Development Director*

Emmanuel Society

The Emmanuel Society has a simple *raison d'etre*: giving members the opportunity to get together with each other and reasons to stay in contact with the college. We do this by arranging events which we hope have wide appeal, although no doubt some are of more interest to recent graduates and others to those for whom graduation is a more distant memory! We try to ensure a good geographical spread of events without too great a focus on London and Cambridge (we can still do more) and we also keep a keen eye on costs, subsidising ticket prices for recent graduates where we can.

So if that's the mission statement here's our annual report.

The year began in November 2017 with dinner at Exeter, our sister college in Oxford. More than 50 members and guests were entertained to drinks in the Rector's drawing room and dinner in hall. As the Rector was abroad, we were hosted by his wife, Marguerite Dupree, herself once a Fellow of Emmanuel, and our guest speaker was the Master. I'm sure it was not lost on Dame Fiona that in 1993 Exeter was the first former all-male Oxbridge college to elect a female head and the only one (so far …) to have elected two women to the post in succession.

After the AGM later the same month we enjoyed a fascinating conversation between the Dean, the Revd Jeremy Caddick and Dr Stephen Barclay, university senior lecturer in general practice and palliative care. It was a privilege to hear their views – from religious, moral, ethical and medical perspectives – on later life and end-of-life care. The biennial sing- and play-through of Handel's *Messiah* from scratch took place in the afternoon.

The society's lecture in late April 2018 – in London for the first time, in the grand surroundings of Leighton House – was given by the Emma art historian Dr James Fox (2001). He gave a fascinating talk on subject of the colour blue, from an analysis of a Titian painting and the oceans as photographed from space to the varying gender associations of the colour and its role in achieving the blackest of blacks and the whitest of whites.

In May we toured the Supreme Court, seeing not only the three court rooms but also the justices' library, which is not normally open to the public. The court's significance, coupled with the imposing architecture of the Middlesex Guildhall, created a lasting impression. The tour was over-subscribed and a repeat visit has been arranged for this October.

In early July members were entertained by the Stowe House Preservation Society and its director, our president, Andrew Fane (1968). After drinks and lunch members were given an introduction to the house and to the extensive preservation work being undertaken, before moving on to a detailed guided tour conducted by Andrew and members of his team. Of many highlights, the views of four counties from the leaded rooftops on a perfect summer's day will stay long in the memory.

The summer's heatwave was still going strong for the society's garden party later in July. Notwithstanding the lack of rain, the college's gardens looked magnificent and were the perfect backdrop for an afternoon of Pimm's and jazz (for adults), face-painting and a treasure hunt (for children), a full afternoon tea and swimming (for all) and a bouncy-castle (which I'd secretly hoped was just for me). There was also a fascinating talk from Dr Penny Watson, a Fellow in veterinary medicine, about animal digestion and metabolism, and its implications for feeding pets and farm animals.

This year we have started a book group – organised by Gin Warren (1978) – which meets regularly in the Fellows' Breakfast Room. At its first meeting in February the group discussed *The Anatomy of Ghosts* in the virtual company of its author, Andrew Taylor (1970) and looked out onto the chapel cloisters where much of the action in the book takes place. At its second meeting in July they discussed *Caro, a Fatal Passion* by Henry Blyth. Further meetings are already planned; full details are on the website.

The annual City and Central London Drinks were held in September at The Bottlescrue, close to St Paul's Cathedral and organised (as ever) by Rodney Jagelman (1969). Members across a wide range of matriculation years were there. This year the drinks will take place at a new venue: Shaw's Booksellers (which apparently is a pub, despite its name). The year's other informal drinks took place in early March for the second year at the Phoenix Artist Club, in the heart of London's Theatreland and organised by JuG Parmar (1986) and Shelly-Ann Meade (2002). This event is particularly aimed at those who graduated the previous summer and many 2017 leavers took up the opportunity for a year-wide informal reunion (or it may have simply been to enjoy the free drinks that were on offer). If you graduated in 2018 we hope to see you at the drinks next March!

Shortly before Christmas the Chapel Choir led the carol service at Temple Church in London. A congregation of about 150 members, friends and family sang carols and heard seasonal readings and prayers. We are delighted to be returning there for this year's service with drinks to follow.

The society also publicised talks aimed principally at current students, including those given by Mary-Ann Ochota (1999), who gave a talk on her book *Hidden Histories: A Spotter's Guide to the British Landscape* and Dr Hugh Hunt (1984), who spoke about the first night of BBC television (complete with spinning discs and flashing lights). The society also supported the launch of Jeremy Musson's architectural history of Emmanuel.

October saw the regular careers evening organised once again by Shelly-Ann Meade and Luke Montague (2008) with support and publicity from the ECSU and MCR committees. Students joined Emma members with experience of recruitment for workshops on CVs, application forms and interview skills. Current students repeatedly say that meeting members for careers advice is of real benefit and we are very grateful to those who take part.

Sport remains part of the society's calendar. In December there was a trip to the Varsity matches at Twickenham to see both the men and the women triumph against Oxford. I have no doubt it

was the five Emmanuel players – in concert with the 25 members and guests cheering them on – that led to victory. Then, in mid-June, the college's cricketers conceded defeat to the Old Emma XI during the post-match drinks. Old Emma captain David Lowen (1964)'s match report on the college's website gives more details, but so far as I can see the manner of victory makes the labyrinthine *Duckworth-Lewis* cricketing formula seem straightforward.

Other events included a tour of the Holdsworth collection at the University Library led by Mark Purcell, Deputy Director, Research Collections, and Liam Sims, rare books specialist. Former and newly elected Herchel Smith scholars attended the annual Harvard dinner in college (the places for the newly elected scholars are paid for by the society).

A number of Emma members also organised gatherings overseas including the regular pre-Christmas drinks in Chicago organised by Nigel Cameron (1971). We are very grateful to Rob Misey (1985) for taking this on for the future.

Luke Montague joined the committee at the AGM in November 2017. Given that he sat on the committee in 2010 during his year as ECSU president he says that it feels as if he never left … Jessica Reilly (2011) has spent the last year in China and has been more than ably represented by Harry Hickmore (2011) in her place. I am very pleased that Harry has agreed to continue to deputise for her during the next academic year.

Once again I would like to express my sincere thanks to Dr Sarah Bendall, Mary Longford and their colleagues Samantha, Lizzie, Linda and Dan for their unqualified support. We are not always as appreciative as we should be of the many competing calls on their time. They are tireless in their organisation and publicity of our events.

I also wish to thank the Master. She too has many other priorities but is an unstinting supporter of the society and our events. The encouragement of her husband, Bob, is also greatly appreciated. The Master's support – and that of the wider Governing Body – is crucial to the society's success and something that is never taken for granted.

I also thank Andrew Fane (president), Rodney Jagelman (treasurer), and Ken Sheringham (1966) (secretary), for their unwavering commitment to the Society. I likewise thank all the committee members – including the MCR and ECSU representatives – for the time that they put in to the society's activities and for their friendship.

All our events are publicised in the monthly e-news, on the college's website, by hard-copy newsletter and via Facebook and Twitter.

I hope that this report meets with the approval of our shareholders …

Nicholas Allen, *Chairman of the Emmanuel Society*

Views

Seabirds: Planetary Sentinels
*The Gomes Lecture, 2018**

What a pleasure and honour it is to have been asked to give this talk this evening. Not least because a black-tie dinner is the nearest any of us are likely to come to understanding what it's like to be in a guillemot colony: all of us in our identical perfect black-and-white plumage, dressed up for tonight just as the guillemots get dressed up every spring in new and glossy plumage to make themselves attractive to all possible mates around them – I agree that may not be exactly the function of tonight – and surrounded by a world of relentless chat and rivalry, full of brilliant talented survivors.

Seabirds are like us in a way that other birds aren't. A female coal tit for example might lay ten eggs in a clutch, but only about one of those ten will have been fertilised by her husband. Coal tit world is a universe of gigolos. But seabirds are what the scientists call 'socially monogamous', which means that like us they at least pretend to be faithful to their spouses. One interesting fact is that Norwegian puffins are 100 per cent faithful for years at a time; while about seven per cent of British puffins have extra-marital affairs every year. This is a difference science has yet to explain.

Like seabirds, we have our own little territories but breed in colonies, we mature late, we live a long time, we have few offspring, we make heavy investment in our chicks, we tend to stay in the same place for many years and spend a great deal of time observing each other. But there is one key difference between the traditions of humanity and of a guillemot colony: it's guillemot women who call the shots. Female guillemots keep a very careful watch, not only on their own husbands but on all the men around

* The Gomes Lecture was endowed by Kenneth R and Cynthia Wight Rossano of Boston, Massachusetts, to honour the late Reverend Professor Peter John Gomes, DD, equally acclaimed in Emmanuel College and Harvard University. The occasion celebrates and reflects the close historic ties that link our institutions. See www.emma.cam.ac.uk/gomes for a fuller history of the Gomes lectures. This is a revised version of the lecture given by Adam Nicolson on 16 February 2018.

them. If their own mate turns out to be useless at domestic duties, at looking after egg or chick, or is a bad fisherman and isn't bringing the sand eels home, they will dump him.

Usually these divorces happened after the death of a neighbouring wife. The situation is this: a female guillemot has been putting up with an unsatisfactory husband for years. He hasn't been good with the children and he isn't much good at bringing home the fish. But no-one better has been available, at least until now. Miraculously, the neighbour's wife seems to have died over the winter. He has always been a marvellous guillemot, fishing with the best of them, a perfect father. And all neighbouring females have seen that. The handsome widower is now standing there alone. Obviously, any guillemot with her head screwed on is going to make a play for him. So she does. Sometimes the George Clooney figure is three guillemot territories away, but the female nevertheless plunges across the colony towards him. They get on famously and soon have a chick of their own to look after. The abandoned husband can shift for himself. He mopes about the colony sometimes for years, very clearly labelled as the kind of husband no-one wants to have. So this is the conclusion: a guillemot colony is one of the few parts of the natural world that is already living in a post-Weinstein universe.

But this occasion is also a chance to say thank you in public to your Master. She is one of my heroes, who when she was Director-General of the National Trust did more than almost anyone has ever done for the real practical engagement of very large numbers of people with the idea that natural beauty matters, that an engagement with and a championing of natural beauty in the world is a route to social, physical, intellectual and emotional well-being, in short to happiness. I should of course also mention that she managed to push something like one million pounds of National Trust funds towards a pet project of my own, which wanted to save Sissinghurst, where I grew up, from the awful sterilised condition into which it had sunk, and change it back into something it had once been, where a beautiful garden had been made in the ruin of an ancient house in a landscape whose main outlines are 1200 years

old and whose most deeply buried and yet still formative bones are as old as the end of the Ice Age.

It was that connectedness across time and space, that openness to a multiplicity of meanings from different sources and from different moments, which was and is to me at the heart of what is beautiful in the world. I got into trouble for calling the Sissinghurst that had developed over the previous 30 years or so 'a Titian with a car park attached', not a place of beauty but a 'visitor attraction', which is one of the neatest of modern oxymorons. But singularity is pollution. Pollutants are toxic because they diminish connectedness and multiplicity. And so, with a place like Sissinghurst, identifying the single product for sale, which had gone on for 30 years – a kind of hortico-literario-aristo-lesbio amalgam of heritage loveliness – was a way of killing it. Of course we must all commodify what we do. We need to be paid. To write a book about seabirds, even to do research on seabirds, is to commodify them. But there is commodification and commodification. And the core of this bad commodification is to simplify, to cartoonise and to diminish the very multiplicity which drew you towards something in the first place. Goodness is complex.

Fiona and I never quite had this conversation, but I think she recognised, and her chequebook certainly recognised, that my proposal to re-enrich Sissinghurst, to re-connect its parts, to allow a certain rough-edged autonomy in those parts, was the route to restoring a multiplicity that had been erased over the preceding 30 years or so. Not a Titian with a car park attached but a living place, with all its muddle, far more beautiful than a visitor attraction could ever be. And I remain for ever grateful to her for daring to have that understanding.

I will talk about seabirds in a while, but I also want to mention Peter Gomes and Emmanuel, in whose memory this evening has been so generously established. I met him twice, when we shared a platform together, once in Harvard and once in New York. A less likely professor of theology it would be difficult to find: sparkly, dandified, funny, clearly engaged with the world as it is, not as an idea but as a place in which to be measured up for an elegant suit

or have a delicious glass of wine. He wrote a marvellous article in one of his books about the marriage at Cana, from which Christ emerges sounding very like the wine correspondent of the *New York Times*. It is not meant to be diminishing to say that he was as beautiful as a puffin. We clicked, as he did with so many people. And I know some of them are here tonight.

I was writing a book about the making of the King James Bible, and Peter led me down a rollicking path on the story of his beloved Emmanuel and the actual tasks of translation conducted within the walls. I am not sure how much people remember this, but the whole point of this college when it was founded in 1584 was that it was to be the most joyless place you could find in Cambridge. No plays, no feasts, no conversation. That was explicitly Mildmay's intention. Presbyterianism was to 1580s Cambridge what communism was to the 1930s and Emmanuel was the heartland of a terrifying idealism.

Other more wicked colleges like Gonville & Caius went in for such appalling things as singing and organs. John Caius was the first man in England to have kept a puffin in his rooms, where he kept it alive for eight months feeding it rabbit. Not here. No surplices, no gowns, no kneeling, the whole church service taken sitting down, no one ministering to anyone, bread and wine passing from hand to hand during the communion service 'one drinking as it were to another like good fellows'. *Plus ça change*, you may think.

And it was a world of completely unashamed love between men. I am not talking about sex. But an amazing intimacy between young men. One correspondence survives between a pair of Emmanuel undergraduates from the 1590s during the summer holidays. One boy writes to another: 'Thou art oftener in my thoughts than ever; thou art nearer to me than when I embraced thee. Thou saiest thou lovest me; good, well repeat it again and again.' The other – later Master of Emmanuel and archbishop of Canterbury – writes back: 'Oh let me bosom thee, let me preserve me next to my heart and give thee so large an interest there that nothing may supplant me'. This was of course of some

interest to Peter Gomes who, marvellously, was a gay, black, Republican Baptist.

One of the passages of the KJB translated in Emmanuel by the company of scholars led by the great first Master Laurence Chaderton, a wonderful man who lived until he was 104, was the Song of Songs, the Song of Solomon, the great love duet of the bible between a boy and a girl. Some sixteenth-century reformers had been keen to exclude it from the bible, on the grounds of its immodesty and fleshliness, but others, drawing on a long Jewish tradition, read it as an account of God's love for his people and his church. That is exactly what Chaderton and the Emmanuel translators went for.

So the girl in the story sings: *A bundle of myrrh is my beloved unto me. He shall lie all night betwixt my breasts.*

And her lover replies: *Behold thou art fair my love; behold thou art fair, thou hast dove's eyes.*

The Emmanuel men calmly annotate: *The Church and Christ congratulate one another*.

The lover continues: *Thy two breasts are like two young roes that are twins that feed among the lilies* (surely one of the most beautiful comparisons to bosoms ever made).

Emmanuel: *Christ setteth forth the graces of the church.*

Thy lips O my spouse drop as the honycomb; honey and milk are under thy tongue, and the smell of thy garments is like the smell of Lebanon.

Emmanuel, inscrutable to the last: *Christ showeth his love to the church.*

What on earth can any of this have to do with seabirds and the world ocean on which I am meant be speaking this evening?

I think the connection may be this: that assumptions are very likely to be wrong. The idea for example that puritans do not know about love. That puritans do not relish the marvels of the physical world. That a Baptist minister cannot love claret. That puritans cannot use language as wonderfully as it has ever been used to express an erotic-spiritual amalgam. That this college of such austerity could not also be the scene of such multi-dimensional passion.

What I mean to say is that unless you actually make the effort to listen to the voices in which others speak – an essentially liberal and Gomesian point, and exactly what is not happening in the political world at the moment – to hear the words they use, and grasp or at least try to grasp the forms of understanding which they embody, you will be stuck in a kind of fog of yourself, a sort of auto-exceptionalism – I am my world – which in the end can know nothing but itself. This is one of the great failings of our culture: the imposition of assumed understandings, or the assumption that understanding can be had without effort. Or, even worse than that, the assumption that there is no need to understand the other.

In 1653 Henry More, the Cambridge Platonist, said that sheep and cattle were the means devised by God to keep meat fresh 'till we shall have need to eat them'. No need for refrigeration in seventeenth-century England because God had already arranged a perfect larder for us walking around the fields. That remains an all-pervasive attitude to nature. Here is a paragraph from the European Environment Agency's website:

> Nature works hard to protect us and to sustain our everyday lives – a fact that is often under-appreciated. But it plays a vital role, providing clean air, clean drinking water, clothing, food and raw materials we use to build shelter. Other benefits are not so well known, such as the role nature plays in alleviating the effects of climate change.

Every single statement in that paragraph is wrong. Nature has no care for us. We take but it does not give, and its existence is not founded for our benefit. That assumption is at the heart of a deep modern failure. The Greek word for the living world was *physis*, meaning 'that which grows'. The Latin word was *natura*, 'that which is born'. Our word is environment, that which surrounds us, as if nature were one of the *New Yorker* views of existence, in which you can know the shops well enough on Fifth and Madison but where something called Europe or Africa or Asia sits as no more than a browny-green blob on a distant horizon.

This failure to enter imaginatively into the reality of others has led to the great ecological crisis we are now in the midst of. To set

against it there is a fascinating and largely neglected figure who championed the idea that the living world needs to be understood not just from ours but from an almost infinite number of points of view. Almost no one has heard of him, but Jakob von Uexküll is the Prospero of all modern nature studies, including those of seabirds. He was a member of the ancient German Baltic nobility, born in his ancestral manor house in Estonia in 1864. His father, a figure out of Tolstoy, was a geologist, deeply loyal to the Tsar, and became in the end the honorary mayor of Tallin. As a boy, Jakob spent many hours on his father's estate carefully observing beetles, caterpillars and frogs.

When a young man, von Uexküll read Kant and became an expert in the body-structures of marine animals, octopuses and sea urchins, making expeditions to the Mediterranean and the Red Sea, investigating the ways in which each organism met, accommodated and understood the world around it. Kant's governing idea, that our minds shape the world we perceive, led von Uexküll to his main focus as a biologist: to understand the sensory and cognitive structures that shape the perceived environment for each animal species. That idea became central to his world view. He recognised that each organism had what he called its *Umwelt*. The German means simply 'the environment', 'surrounding world', but more largely it means the animal's self-centred subjective world, which is only a small tranche of all available worlds, the one its own senses give it. Each species lives in its own unique sensory universe, to which we may be partially or wholly blind, and so it is wrong to speak of animal 'cognition' or animal 'intelligence'. We must speak in the plural of 'cognitions' and 'intelligences'. There are as many of those different perceived worlds, the *Umwelten*, as there are individual creatures in the world. Each animal's 'meaning-world' cannot be understood on any terms except its own.

In 1917, the Russian Revolution took the von Uexküll estates from him and destroyed any wealth tied up in Russian state bonds, which became worthless. The family was now exiled and poor, and von Uexküll spent much of his life moving across Europe from one house and one job to another. Adrift in the world, he taught biology

to his friend Rilke – surely the makings of a Tom Stoppard play there – and ended up in the 1930s, disapproved of by the Nazis, teaching, among other things, at an institute attached to the aquarium of Hamburg Zoo that trained guide-dogs for the blind. Von Uexküll based his methods on the *Umwelt* concept and devised a way of teaching the dogs that is still in use today.

As the blind man and the dog have two different *Umwelten*, the trainer has to understand the perceptual and cognitive differences between them. A guide-dog, for example, will not mind if a door is only three feet high, but the blind man will. The dog's perceptual world has to be extended upwards. They made the trainee dogs walk around a building pulling a cart in which a life-size model of a man stood six feet tall. The dog soon learned that he had to understand the building in the way a man would understand it. Only by grasping the *Umwelt* of the other species would the dog not be *bedeutungsblind*, 'blind to its significance for the other'.

We are that dog and the rest of creation is the man in the cart. We have until now been quite casually wounding and breaking that man as we have been strolling through the three-foot-high doors. We have to stretch our understanding to accommodate the understanding of others. Konrad Lorenz knew, visited and admired von Uexküll. Through Lorenz and later through his follower, admirer and joint recipient of the Nobel prize Niko Tinbergen, von Uexküll's legacy has shaped the way in which science at least is looking at the animal kingdom. The autonomous organism, the creature with an independent and unique meaning-world around it 'like a soap-bubble' as von Uexküll said, has become the subject and focus of modern life-sciences. It is an acknowledgement of the subjectivity of other creatures. The fear has largely ebbed that it is somehow sentimental to attribute forms of understanding to other creatures. That it is somehow anthropomorphic to think that other creatures think, but this is a recognition that has yet to spread into other areas of human enterprise. If the claims of nature are considered at all, they are almost always calculated in terms of human benefit. What kind of world, it is often asked, would we be living in if other creatures were absent from it?

How diminished would our lives be? How impoverished would our own experience of beauty be?

Those are not satisfactory questions. It is not enough to think that other creatures are valuable because we consider them beautiful. That question has not made the key Uexküll switch. Unless we accept the multiplicity of *Umwelten*, with which every creature perceives the world in ways that are unique to it, we will inevitably end up ranking everything on a single scale, and that scale will be measured by our own human standards. If you are stuck in an anthropocentric vision of nature, you will inevitably think that the more like humans any animal seems to be and the more linguistic and even technological skills they seem to have, the cleverer they are.

But as the primatologist Frans de Waal says, 'There are lots of wonderful cognitive adaptations out there that we don't have or need ... Cognitive evolution is marked by many peaks of specialisation.' We have no monopoly on intelligence. We would not know how to plunge-dive for herring or locate the Mid-Atlantic Ridge by memory. We could not hang in the updraughts by a cliff or find our way alone all winter across the Atlantic. We would not know how to exist in a form that is not our own. Animals are intelligent in ways that are different from ours.

The irony is that that enclosedness, that inability to make the imaginative leap into the *Umwelt* of another being, may be integral to all living things. I have watched a golden eagle for an evening displaying to its mate above a kittiwake colony. The kittiwakes were circling around their cliffs while the eagle was making a series of astonishing folded tuck dives above them, each a plunge through air as driven as any stallion displaying to its mares, an arrowhead hunched into the wind, possessing his cube of air, two miles wide in each direction, a vast box of wind the eagle was claiming as its own.

The kittiwakes paid no attention. The eagle was communicating only with another eagle. Its power-ballet, even as it was being hammered again and again by the great skuas, the great black-back gulls, the ravens and the peregrines, nibbling and nabbing at it as it tried to maintain its dignity: all of that was quite irrelevant to the

kittiwakes, which were untroubled, swirling to and fro above the rocks, shouting at each other, embedded in their world.

It was like two different principles of life in action: the great predator owning the air, the seabirds inhabiting it; one demonstrating its own vastness, the others absorbed in their lives as if nothing existed outside them. I have seen the same thing in among the boulders of an auk colony: thousands of razorbills hawking and juddering around the rocks, big power-birds when you get close to them, equipped with ferocious, striped machete-bills, and between them, in another universe of consciousness, three dark little wrens hopping and peeping in the screes, arguing and shouting over some political or legal question in wren-world, indifferent to the armies of black-and-white giants looming over them. Each bird is wrapped in its unique *Umwelt*, separated from the others by evolution, seeing nothing but the world it sees for itself.

If we have through our history been shut into our perceptions, that is probably because enclosure in one's *Umwelt* is a guiding principle of life on earth. And the fact that, led by figures such as von Uexküll, Lorenz and Tinbergen, we now seem to be stepping outside that enclosure is a moment of revolutionary significance. If *Umwelt* is the product of close and extreme attention to the things that matter in your life, and indifference to those that don't, then we have probably reached the moment when what matters to us needs to expand beyond our own narrowly and historically defined interests. For all the vertigo this thought might induce, the human *Umwelt* now is and needs to be global. We must now enter the age of empathy. Think of that dog and the man in the cart.

One of the points at which this impinges is what we mean by intelligence. It is very easy to think that an animal is intelligent if it is intelligent like us. And so crows and parrots can be clever like us, tool-making and cleverly deceptive, deliberately pretending to do things so as to deceive competitors. Pigeons can tell if a picture is painted by Chagall or van Gogh, Monet or Picasso. Some South American parrots give individual children different names, by which they call to them when arrive at the nest, and to which those children respond.

Those estimations of cleverness are all founded on a pre-Uexküllian principle, judging the excellence of animals to the extent that they resemble our own excellence. But I think we may need a new definition of intelligence in animals, one that doesn't distinguish between or at least blurs the boundaries between that kind of cleverness and what might be called instinct or 'genetic intelligence' or even 'embodied intelligence', the intelligence whose form in the world is the animal's physical existence. It does not consist merely of tool-making or curling leaves to extract ants from a hole. It makes sense as a more comprehensive category, running from predatory canniness to body-design, from aerial skills to the form of the feather, like the cormorant's feather which in some evolutionary sense has decided to be wettable so that the bird is less buoyant when diving in the shallows and takes the price of having to dry its wings afterwards.

Whatever term you want to use – intelligence, capability, admirability – this quality of excellence in the bird extends all the way from an inventive form of hunting to ingeniously adapted mating behaviour, to a resilience and responsiveness in a changing world, to an effective immune system. The whole creature is the vehicle of intelligence, its memory, its eye, its colouring, its aggression, its fear, its beauty, its ability to choose a top-dollar husband.

It is easy to think of seabirds as flying rats, annoyances on summer afternoons, but they are of course far more than that, perfectly and ingeniously adapted creatures whose world is the ocean. They must come to land only because no egg can be laid on the sea, not because it would sink but because the embryo cannot breathe unless the egg is surrounded by air. Their antiquity is part of their beauty, and the green stare of a shag's eye has been unchanging for the last 70 or 80 million years. Their world can be cruel and unforgiving, mutually destructive, and uncompromising, for example, in the strategic choices made every year between the survival of the adult or the chick.

They have formed part of my own imaginative life ever since I was a boy. My father, when an undergraduate at Oxford in the 1930s, was left some money by his grandmother. At home in the

spring vacation, his mother saw an advertisement in the paper: 'Islands for sale, sea caves, early lambs, puffins. £1200'. That summer he went up to see the islands for a day and bought them on the spot. He first took me there when I was about nine years old and it is difficult for me to think of anywhere that has had a greater influence on my life or the way I see the world. The islands are tiny, 500 acres, in the Minch between the Inner and Outer Hebrides, with some wild and turbulent seas around them, and each summer they are the home to about 300,000 seabirds: a huge colony of puffins, guillemots and razorbills, fulmars, kittiwakes and other gulls.

Dark rocks, grassy slopes, a sheltered bay, the little white house, stony beaches. I had never seen this scale of things before: tall, cliffed, remote, fierce, beautiful, harsh and difficult but, for all that, dazzlingly and almost overwhelmingly thick with the swirl of existence, lichened, the rocks glowing saffron orange on that summer morning, the air and the sea around us filled with birds, a pumping, raucous polymorphous multiversity in which everything was alive and nothing refined.

It was a vision of another world. We landed and picked our way among the colonies. Birds swept over us. We could sit by them and look them in the eye a yard away. Chicks peeped from among the boulders. Puffins growled deep in their burrows. As giant wheels of them turned in the air, their flight feathers rustled and hushed above us. A great black-backed gull swept down and grabbed one in mid-flight. Older victims, stripped of their meat, washed to and fro in the edges of the sea. Beauty and perfection, death, dissolution and life, suffering and triumph: it was all here.

Some people, confronted with a seabird colony like this, turn away from its irreducible presence with a kind of distaste. The multi-layered grab is too much, nightmarish in its half-hidden crevices and suddenness, the shrieking and hawking, the reek of existence. But that inelegance, that dazzling, green-eyed crudity, was the point for me. This was unlike the quiet and careful places I knew at home. It was a section through creation, the column of life itself, drawn down from the eagles a thousand feet above, distant

and mesmeric, on through the life and struggle on the cliffs themselves, the stink of ammonia, the chaos of broken shell and kelp stalk, to the lobster rocks and the seal colony below them. Beyond that stretched the open sea from which this life was drawing its sustenance, covered in birds as if paved in them. I saw it as a kind of reality, full-depth, full-intensity, no compromise, the world as it was usually hidden from us. It became a baseline and touchstone for me of what the world might be.

It is easy to think, for example, of puffins as sweet and charming creatures. They are not. They are fabulously successful ocean travellers, ruthless at each other's expense, dressed up, maybe, with as much summer decoration as a field marshal but, as modern tracking experiments have shown, holding within their minds individualised and conceptual maps of the North Atlantic, allowing the birds to traverse millions of square miles of winter ocean between each of their brief summer moments breeding in the colony. Or to think of a fulmar as no more than an elegant flyer off our northern cliffs. But as trackers have shown, Orkney fulmars can fly to and from the Mid-Atlantic Ridge even in mid-summer while sharing the incubation of an egg or the raising of a chick, simply because they know that out there, two-thirds of the way to Canada, are some of the richest and most predictable fishing grounds in the Atlantic. Fulmars know how to read a weather system, using two limbs of a passing low to travel out on easterlies, back on westerlies. They can read the western seaboard of the British Isles, knowing how to track home from any landfall they make. They know their world in ways few of us could imagine knowing it.

Once you have understood that an incubating fulmar can travel 3900 miles in two weeks to gather the nutrients for its growing chick, you cannot watch the bird at a summer cliff and see it in the same way. Its ærial ease and swank, its imperial familiarity with the wind, now appear only as the outermost tips of an oceanic life. An iceberg of otherness lies hidden beneath that visible surface. The GPS tracker has seen into those depths in a way no-one has ever seen before, just as a creel pulled into a fishing boat brings unsuspected creatures to the light. Here is a bird so attuned

to the ways of planet and ocean, not only physically and instinctively but also psychologically and even analytically, that it is possible to see in its whole being a sort of genius. And the GPS tracks are a map of that mind, allowing a glimpse, astonishingly, into a fulmar's consciousness. It has always been known, somehow, that shearwaters are the greatest of ocean voyagers, at least in the northern hemisphere. Hermes in the *Odyssey*, Mercury in the *Aeneid* and even Satan in *Paradise Lost* (when not appearing as the cormorant who 'sat devising Death/To them who liv'd') have all manifested themselves as shearwaters, effortlessly cruising the oceans of the cosmos. Only in the twentieth century did science begin to catch up with what the poets had always known. The great pioneer was Ronald Lockley, who in the 1920s rented the little island of Skokholm off the Pembrokeshire coast and began to investigate the shearwaters nesting outside his kitchen door.

Lockley decided to send two of the Skokholm birds to Venice by plane. Two days after leaving the island, in the early evening of 9 July, in one of the great moments of twentieth-century seabirdology, the shearwaters were released over the Venetian lagoon, a quarter of a mile south of the Giudecca. Alan Napier, His Majesty's Consul at Venice, there to oversee the operation, reported that the sky was clear, the sun setting, the water of the lagoon dead calm and no more than 'a suspicion of a breeze' coming in from the east. Both birds were dipped in the lagoon water: one headed south, out into the Adriatic, the other west towards the Alps in the rough direction of Skokholm.

One of these birds disappeared. The other was a revelation. On the evening of 23 July, two weeks after she had left the Giudecca, with a moon shining over the island, Lockley found her in her Skokholm burrow. He 'handled and stroked her in the moonlight with something like awe. She was plump and glossy. She had done herself well, in spite of the long voyage.' Her egg had hatched while she was away, and the father had tended and fed the chick so that it too was now 'solid with food and fat'. The entire family was in perfect condition, as if no world-changing event had come anywhere near their lives.

Lockley could only guess at the route she had taken: either a thousand miles north-west over the Alps and then the Vosges, straight over Paris to the Channel and on to Wales; or, perhaps, given the shearwater's intimacy and attachment to the sea, down the Adriatic, around the heel and toe of Italy, across the Mediterranean to the Strait of Gibraltar, around Portugal, turning at Cape St Vincent and then over the Atlantic to Pembrokeshire, a journey of about 3700 miles. Lockley thought she must have come straight over the European land mass, 'unable to resist the mysterious "pull" of home', perhaps over the Apennines to Genoa, then across France to the Bay of Biscay, feeding there on sardines, the source of her gloss and well-being, and then home, heading not just for home waters, or the familiar stretch of country, but for that particular Skokholm burrow, for the mate and the chick waiting there. At the end of the following March, the second Venetian bird reappeared on Skokholm, also apparently no worse for its adventures.

Only in the late 1980s was the pattern of their lives first properly guessed at. Michael Brooke, curator of ornithology at Cambridge University, collated and examined all 3600 rings by then recovered from dead shearwaters across the Atlantic. It has been said that trying to puzzle out the habits of a seabird from ringing recoveries is like trying to understand the social life of a city from a map of its murder victims, but Brooke's analysis suggested an intriguing pattern: the fledglings headed south from Europe, along the French and Spanish coasts to Madeira and the Canaries, until they picked up the north-east trades that blew them to Brazil. There, Brooke reckoned, they spent the winter and maybe much of the following year before heading north to the seas of the Grand Banks off Newfoundland, and from there with the westerlies across the Atlantic to the colonies in Europe. This track, looped across two hemispheres of the Atlantic, then became the life-pattern of the bird, exchanging northern winter for southern summer, and southern winter for northern summer in a vast yearly odyssey.

It was an impressive piece of detective work, for which there could be no confirmation until instruments had been miniaturised

to the extent that Manx shearwaters could carry them without debilitating effects. That had to wait until 2007, when a team led by Tim Guilford at Oxford recovered the 12 light-logging geolocators, each weighing less than one-hundredth of an ounce, from six pairs of Pembrokeshire shearwaters to which they had been fitted the year before.

Brooke had been largely right: the autumn birds swung fast down the west coast of Europe and Africa, took to the trade winds, crossed the Equator and made for Brazil before heading south to overwinter among the rich fishing grounds off the coast of Patagonia (from which there had been no ringing returns). The journey north headed for the Equator and then curved west through the Caribbean, some birds reaching the eastern seaboard of the United States, and all then heading back east across the North Atlantic. Everything Homer, Virgil and Milton had imagined for the shearwaters was recorded by the instruments: vastness, command, oceanic extent and speed. The fastest, a male from Skomer, had flown south in the autumn of 2006, covering more than 4800 miles in six-and-a-half days.

These miracles of modern understanding have accompanied our modern destruction of the birds. Over the last 60 years, the world population of seabirds has dropped by over two-thirds. One-third of all seabird species is now threatened with extinction. Half of them are known or thought to be in decline. Some petrels, terns and cormorants have been reduced to less than five per cent of the numbers that were alive in 1950. Albatrosses and shearwaters, frigatebirds, pelicans and penguins have all suffered deep body-blows. Some bird families – the gannets and boobies, some gulls and storm petrels – have managed to keep their numbers up or even to have increased them slightly, but overall the picture is a decline in seabird numbers of about 70 per cent in six decades. A 2012 study by the great British Antarctic bird scientist John Croxall and others found that seabirds were in more danger than any other class of vertebrate. Those seabirds whose numbers are even roughly known have dropped from about 300 million in 1950 to about 100 million in 2010. Individual species such as the Guanay

cormorant on the Pacific coast of Peru have crashed from more than 20 million to two million in the same time. Scale up the decline to the global seabird population as a whole and the figure you get is one billion fewer seabirds now than in 1950. The graph trends to zero by about 2060.

There are many causes: overfishing; the massive accidental catching of birds in fishing gear; their deliberate destruction; the introduction of rats, cats, dogs, pigs, goats, rabbits and cattle to the breeding places of birds that are defenceless against them because they have not evolved with them (many Pacific birds literally cannot smell a rat); pollution by oil, metals, plastics and other toxins; the destruction of nesting sites by human development; and the multiple effects of climate change and the acidification of the sea.

But I want to leave you with a question: Why is it we are coming to understand the seabirds just as they are dying? One sentence, from Hegel's preface to *The Philosophy of Right*, his vast and daunting exploration of life, government and morals published in 1820, haunts this subject: 'The owl of Minerva flies at dusk'. Minerva, the Roman Athene, is the goddess of wisdom. The grey-eyed owl that sits on her right hand looks into the evening shadow and flies only at dusk because, as Hegel says, 'Philosophy always comes too late'. The German is fiercer than the usual translation: *Die Eule der Minerva beginnt erst mit der einbrechenden Dämmerung ihren Flug*, in which *einbrechend* means 'breaking in', 'burglarising', the dusk vandalising the daylight. The owl of understanding begins her flight as darkness muscles its way into the light of the world.

It is one of the great curiosities that this should be the case, that the very technological civilisation which is allowing us to understand these creatures and their *Umwelten* for the first time is the same civilisation as is destroying them. Why should that be? Why do we understand things as they disappear? I don't know the answer to that question and I doubt at this stage that you will want much more speculation from me. The great first Master of Emmanuel, Laurence Chaderton, once paused after giving two

hours of a sermon in Great St Mary's. The entire congregation stood up and shouted 'For God's sake go on!' He gave them another hour.

But I will stop here. Montaigne famously wrote that 'There is no parcell of this world, that either belyeth or shameth his Maker'. In another, not so transcendent language, that is what I want to say too. This is not about surrendering analytical intelligence. All of these new understandings about these animals are the product of scientific investigation. Nor is it a transcendent view of the nature of life, although seabirds have often been seen like that. It is if anything an inscendent view, a term devised by the American Thomas Berry, meaning not to climb beyond the evidence of one's senses but to climb into them, to penetrate the nature of things and in doing that to generate a sense of wonder. Not so that we can use the world for our own purposes. Nor even to use it for beauty purposes. Not to think we should attend to its well-being either because of our need for oxygen or vegetables. Or simply to get the pleasure from it that beauty can give. Not to treat it as an environment. All that is no less arrogant than those Cartesian scientists who opened the chests of living dogs so that they could feel the heart muscle pumping inside, as Descartes did himself. It is simply to recognise that the world is more and better than we have yet understood.

Adam Nicolson, *writer*

Peter John Gomes

The annual Gomes Lecture, followed by the finest feast of the year, both generously endowed by Ken and Cynthia (Muffet) Rossano, is a red-letter day in the college calendar. Who, though, was Gomes?

Wikipedia sets out his many claims to fame and reverence. He was Plummer Professor of Christian Morals and Pusey Minister in the Memorial Church at Harvard University, although he preferred

his former title of 'Preacher to the University'. *Time* magazine described him as one of the seven great preachers in America. He was author of a well-regarded best-seller on the bible, *The Good Book: Reading the Bible with Mind and Heart.* He had honorary degrees from 39 American universities. None of these, however, reveals the personality, warmth, humour and eccentricities that made so many of us glad to be 'Friends of Gomes'.

I first met Peter in 1973 at a dinner party in Oxford. Conversation was dominated by a terrifyingly opinionated sociologist with clunky bangles, which rattled as she gestured at us over the table. When it came to coffee in the next room, my one thought was to find myself as far as possible from her, and I seated myself at one end of a small sofa in an alcove at precisely the same moment as a small, rotund, young black man, who had been introduced earlier as the new preacher to Harvard University, hurled himself onto the other end. We quickly established that he had chosen this refuge for precisely the same reason. We spent the rest of the evening there, and that was the beginning of a friendship of nearly 40 years, brought to an end only by his untimely death in 2011.

Almost every year he visited us for a few days in the headmaster's house at Abingdon, Shrewsbury or Eton, and almost every time we were in the States, Sparks House, just outside the gates of Harvard Yard, was our first port of call. It was an elegant yellow clapboard house, moved bodily in the past from another site, and now filled with Peter's clutter of antiques and memorabilia acquired on both sides of the Atlantic, and photographs of friends and great occasions.

Peter was born in Plymouth, Massachusetts, and kept his house there as a retreat. When you drew back the spare-room curtains in the morning you could see, on the little hill almost next door, the graves of the Pilgrim Fathers, of Winthrop and the saints. Peter was steeped in the history and times of the pilgrims, and a mainstay of the modern-day Pilgrim Society. Indeed, he had been chosen as chairman of the anniversary celebrations due to be held in 2020, and had intended to devote his retirement to those.

Everyone knew him in Plymouth, and going into town with him was a royal progress. For the older people he was 'Mrs Gomes's boy', I suspect, for she too was a character, dignified, forceful and highly intelligent who, sadly, I met only once. She knew what standards were in all moral and social matters. Peter enjoyed telling the story of her visit to the hairdresser, when a new girl took charge of her hair for the first time. 'What's your name?' the slip of a girl asked her. 'Gomes', she replied. 'Yeah, but I meant your first name.' 'Mrs', came the reply.

In Plymouth, two churches face each other in the centre, one of them, inevitably when you understand the inherited religious intolerance of the puritans' descendants, built for the part of the congregation seceding from the original church. There had been a great fight over whether or not they could take their share of the contents of the church to the new place. They had lost that battle, and Peter loved telling the story that they added to the board outside their new church: 'They kept the furniture; we kept the Faith'.

I think it was the Pilgrim Fathers who first brought Peter to England. He represented Plymouth, Massachusetts, at the celebrations in Plymouth, England, in the early 1970s, marking some anniversary or other of the *Mayflower*'s departure and that experience began his long love affair with Britain. He always included two British representatives on the visiting committee to the Memorial Church at Harvard, of which Robert Runcie was one for a time. He gave lectures or a series of lectures in Oxford, Cambridge and Eton; he helped me to set up a Shrewsbury-Harvard fellowship later imitated by Eton, Bryanston and Stowe, which brought a talented young American student to England for a year between university and graduate school. He preached from most of the great pulpits, a wonderful preacher and spectacularly good on any special occasion; I always admired the way he worked on the history of the institution to relate that history to his theme. When Bury St Edmunds celebrated its new tower in 2005, Peter was the principal speaker; and although neither in physique nor inclination a natural oarsman, he was even asked to take on the annual service

at Henley Royal Regatta. It was probably the only occasion in his career when some members of his congregation walked out before the end of his sermon, but the Henley Regatta runs on a rigid adherence to time, and Peter ignored the instruction to preach for no more than 12 minutes, giving us 30 instead. The stewards in charge of the first races had to slip out.

One preaching engagement, for Gilleasbuig Macmillan at St Giles in Edinburgh, furnished him with a story against himself with which he opened his after-dinner remarks more than once. He was accustomed to standing by the door after services in the Memorial Church, shaking hands and receiving complimentary remarks about his sermon. In Edinburgh, Gilleasbuig and he stood together at the west door, offering the right hand of fellowship to the congregation as it departed. The grave burghers of Edinburgh shook hands politely but silently. No word was spoken about the sermon until, very near the end, a little old lady in a hat and fur coat looked up at Peter as she shook hands, and said, 'Oh, Mr Gomes, it must have been a great honour for you to have preached in St Giles!'

Peter was a royalist as well as an anglophile, which was not true of all the members of the committee planning Harvard three-hundred-and-fiftieth anniversary celebrations. Peter outsmarted them by proposing that, as John Harvard had been a graduate of Emmanuel College, Cambridge, it would be appropriate to invite the chancellor of Cambridge as the chief guest from England. That was agreed, and it was only as they were leaving the room that one of the committee members said, 'Does anyone happen to know who the Chancellor is?' 'I think', said Peter, who knew very well, 'that it may be Prince Philip'. In the event that Prince Philip was unable to accept, the Palace suggested that Prince Charles, who was a graduate of Cambridge, would be happy to come in his place.

Poppy and I were in Harvard Yard for his speech. The American beside us grumbled that he didn't know why he was sitting there waiting to be lectured to by a princeling who had nothing to do with Harvard and knew nothing much about anything. Charles spoke so well, having rewritten the entire speech

on the plane coming over, that my neighbour tapped me on the shoulder at the end and said, 'I know now. That was impressive.'

As chairman of Cumberland Lodge in Windsor Great Park, I was able to take Peter to matins in the royal chapel on one occasion, and to introduce him to the Queen afterwards. The Queen Mother promptly invited us to drinks in Royal Lodge, where she made Peter sit down beside her to discuss sermons. 'I hope you give your congregations good news on Sundays', she said. 'I do like a bit of good news on a Sunday.' That was a text too good to miss, and Peter used it the week after her death when he devised and preached at a memorial service for her in Boston.

As Preacher to the University he was worth travelling miles to hear, as we did on more than one occasion when we flew up to Boston on a Sunday morning from New York. The Memorial Church was packed – more with faculty and adults than with students, it has to be said – and Peter conducted a service entirely in his own image: a blend of non-conformity and high Anglicanism. The highlight was always the sermon, a wonderful performance full of humour and the rolling cadences of the King James Bible. He also read beautifully, and no doubt would have played the organ too, if the musicians had given way. On his visits to Eton he spent happy half-hours in the organ loft playing, and enthusiastically discussing Stainer with Alastair Sampson, Eton's organist, who was Stainer's great-nephew.

Harvard, Peter delighted to remind you, was the 'godless college'. Not for his congregation, though, and not in the aftermath of 9/11 for the mass of students who flocked instinctively to the Memorial Church to try to make sense of an event that shook their world. Peter had always had the ear of Harvard's presidents but not, until that day, of Larry Summers. Larry was not, I suppose, converted to Christianity by the crowds outside the church in Harvard Yard seeking meaning from Peter, but he was converted to Peter. We later heard him speak impromptu at a Memorial Church spread, saying, to the astonishment of most of those present, just how important the Memorial Church and Peter were to the Harvard community.

By the end, Peter had become the best-known character at Harvard. The irony that his chair – the Plummer Professorship of Christian Morals – had been founded with money earned from slavery delighted him. His historical course, entitled 'The history of Harvard and its presidents', as witty as it was scholarly, was hugely over-subscribed year after year. He seemed to be on every Harvard committee. He was the preacher in demand by every university with a major anniversary or other event; and twice he said prayers over presidents of the United States, those of Ronald W Reagan and of George H W Bush, at their inaugurations.

He enjoyed all that and he worked all the hours there were. He was a great host, both at personal dinner parties and on Wednesday afternoons at Sparks House when, in imitation one might think of an old-fashioned vicar in an English country parish, he kept open house for tea. The time was announced each Sunday from the pulpit, followed by the words, 'Mrs So-and-So will pour'.

He was loved not just by his band of pourers, of whom Muffet Rossano, Emmanuel's benefactor and Peter's sole editor, was the chief, but also by all who knew him. His legacy may be thought of in the future as the reconfiguring of the Memorial Church and the new organ for which he raised the funds. Although personally hopeless with money he was a great fundraiser, as he had to be, thanks to Harvard's old doctrine of 'Every tub on its own bottom'. I think it really happened, but if not it should have, that at a fund-raising gathering to launch an appeal for $8 million, he stunned his audience by beginning, 'I have good news. We already have the money!' 'The only problem', he continued, 'is that it is still in your pockets and not yet in mine'.

That, however, is not his real legacy. Those of us who counted ourselves as Friends of Gomes, if that enormous community of students, faculty, friends and acquaintances could be so called, will remember an inspirational figure, a warm companion with a gift for a great phrase and gusts of deep-rolling laughter.

Eric Anderson, *One-time headmaster of Eton and Rector of Lincoln College, Oxford*

Emmanuel and the Great War
*Part Five: 1918 – and Aftermath**

The editorial that opened the August 1917 issue of the *College Magazine* had been apologetic about the lack of content, but that of the 1918 edition struck an even more resigned note: 'Shortage of paper and subscriptions, and an entire lack of literary contributions, have reduced the present number of the *Magazine* to a bare record of facts. The War List has been thoroughly revised but is inevitably imperfect; and a few Notes on College events are included.' The 'Notes', penned by PW Wood, contained a few items to cheer, however, such as the fact that the number of resident BAs and undergraduates had shown a steady increase: '… some old members have returned to the fold after being invalided out of the army, the policy of demobilising medical students to continue their studies is beginning to bear fruit, and the development of the OUTC [Officers' University Technical Classes] promises to give a regular supply of undergraduates.' All the same, the college was still a shadow of its former self, for the total number of men in residence in Lent and Easter terms (about 70), although significantly up on that of 1917, was still only about one-quarter of the pre-war figure. Organised sport continued to be impossible, but 'a few enthusiasts took their first lessons in Lawn Tennis during the May Term', no doubt coached by PW himself, who was a keen player. PW then reported that the university was considering admitting women on terms of complete equality with men, and that the Previous Examination Syndicate had dropped compulsory Greek but had introduced other compulsory subjects, which promised to become equally unpopular.

Cambridge remained full of the military and North Court continued to be occupied by successive groups of cadet officers serving in 'C' company No. 2 OCB. Emmanuel's Dean, the Revd Charles Raven, who had been serving as a chaplain on the Western Front, was so shocked by what he saw on a visit home in May 1918 that he penned a letter to the *Cambridge Daily News* deploring the

* Extracts from war-time Cambridge daily newspapers kindly supplied by John Pickles (1967)

fact that 'the blatancy of professional prostitutes, and the loose behaviour of many girls of more fortunate class, is sufficient evidence that things are not what they ought to be or even what they have been, and that it is not fair to ascribe this solely to the conduct of the men who are here as cadets or with commissions. There is not to my knowledge any town in France (except perhaps Paris) where a lad has less chance of keeping straight.' A far-fetched claim, no doubt, but it was true that war-time Cambridge offered many temptations to students and servicemen alike. In April 1918 the departing officers of 'C' company produced a souvenir magazine entitled *Cheerio*, which included a feature under the byline 'Confessions of Connie' that purported to be an extract from the diary of a popular Cambridge girl. Unable to choose between her myriad admirers, Connie's solution was to date all of them, although on occasion even she over-reached herself: 'Friday. Had four appointments tonight, but decided, after all, to keep the one at the corner of Emmanuel Road. Hope the others didn't mind. Saw W- home to the College. What a shame this nine o'clock rule is … Have promised to reform, but think it impossible with so many dear boys about.' Lieutenant Edmund Trotter, an Australian from New South Wales who appears to have been the wag of 'C' company, contributed a couple of humorous poems about the female charmers of Cambridge, one of which, *A Plea to the Cambridge Flapper*, begins:

O Cambridge flapper! Thy guilt is great!
Thou puttest notions in the Cadet's pate
Thou dost cast thine eyes with wily look
With which the 'lately-arrived' to hook;
Thy pretty flapper curls dost shake
Which quickens the pulse of saint or rake
Thou paradest the streets, giving thy 'glad-eyes'
Causing married men to forget their ties … [Etc, etc].

Trotter wrote in a rather different vein in another article, extolling the joys of having exchanged the 'Hell and wretchedness' of Belgium (graphically described) for Cambridge, 'a town of magnificent traditions and beautiful surroundings … here in our

own College garden the bursting buds are just being kissed to waken and open to full bloom by the soft touch of light which the sun sends down, giving a warm glow to these early spring days.' The successive groups of embryo cadet officers, as well as the naval officers who succeeded them as occupants of North Court in 1919, thoroughly enjoyed their sojourns at Emmanuel, participating in many aspects of college life. In his editorial in the 1918 *College Magazine*, PW expressed his belief that 'most of our visitors go away with the feeling that if they are not sons of Emmanuel, they are at least something much more than step-sons'.

A Plea to the Cambridge Flapper, from Cheerio

The college Law Society held a meeting every term in 1918, although no more than four members were ever present. On 20 February Stanley Herz read a 'topical paper on hospital ships and the rules of international law relating to them. This led to a very interesting discussion on the legal and other aspects of the war in which all took part.' Herz, who although educated wholly in England was the son of a deceased German landscape painter, took a BA in law and modern languages in 1922. He later changed his surname to Hartley and served as a fine arts and monuments officer with the British Army of the Rhine. The Emmanuel Debating Society seems to have held no meetings during Lent and Easter terms 1918 but met twice in the Michaelmas term. On 21 October 1918 there was a rather unfocussed meeting at which various matters were discussed at great length to little effect; the quality of college food featured as usual, it being proposed that the cook be requested not to put cement in the pastry. The proposer

was then asked to produce evidence that the pastry had been so adulterated, but 'Mr Attenboro [Frederick Attenborough, later Fellow] pointed out that Mr Thompson did not assert that cement had been used but merely requested that the Cook be asked not to put cement in the pastry in future … & the motion was carried unanimously'. At the subsequent meeting Mr Thompson related in 'honeyed words … all that he said to the Cook [but] he was wise enough not to repeat what the Cook said to him'. A discussion about bath accommodation then followed, 'enlivened by a few irrelevant personalities, regarding bathing'. After all this hilarity the freshers' debate finally got under way but as the proposed motion (carried 9:4) was that the Earth was flat, the light-hearted mood presumably continued.

The correspondence between PW Wood and Emmanuel men serving at the fronts peters out in the autumn of 1917, so for the last year of the war we have none of the vivid personal accounts of military life and action that so illuminated the earlier years of the conflict. There were 20 Emmanuel casualties in 1918, many of them incurred during the German spring offensive of March-May 1918, which began with a ferocious bombardment on 21 March. A vivid account of the opening days of that campaign is recorded in the diary of Major Wilfrid Mansfield (1912):

> Guns going like nothing on earth …The battle has been raging fiercely all day and the Bosch has gained ground. Refugees have been streaming through this village driving their cattle before them and with all their household goods on the farm wagon with a few babies on top. I have seen a magnificent air fight today. The Bosch dodged and dived and side slipped and turned somersaults, all to no purpose, our fellows were too smart for him and a well-aimed shot from one of our planes set him on fire when he was right overhead and he fell in a sheet of flame to the ground … ordered to evacuate my place as the Bosch was advancing rapidly and had already landed a Field Battery of light guns on my farm. It was an awful job getting all my men on the move.

Wilfrid survived the war to become director of the Cambridge University Farm and a Fellow of Emmanuel.

The day-to-day running of the college remained, to a large degree, the responsibility of PW Wood and by 1918 the strain of this

had begun to take its toll. In May of that year the Governing Body recognised this by authorising payments of '£50 each to the Bursar and Steward [PW] in recognition of their exceptionally valuable services to the College since the outbreak of war'. At the same time, rather ironically, PW was facing a renewed threat of conscription, for his exempt status had come under review by the Board of Military Studies (the 'Tribunal') and although he was granted a three-month extension at the beginning of February 1918, things did not go so smoothly when the case was reviewed in May. The army had been suffering heavy losses in the spring offensive, with the consequence that the upper age limit for conscription was about to be raised from 41 to 51 and existing exemptions were being subjected to more rigorous scrutiny. Although PW did in fact obtain a further three-month extension, the military representative on the Tribunal appealed against the decision on the grounds that the college could be run quite well by its domestic staff and the few Fellows who were above fighting age. On learning of this, the Master of Emmanuel, Peter Giles, at once wrote to the Vice-Chancellor to ask him to intervene with the military authorities, observing that the cook and the butler could not be expected to take on the educational work of the college and stressing that it was the decrepitude of the older Fellows that had necessitated Wood's acting as Librarian, Proctor, Praelector, Steward and Senior Tutor, as well as handling the college's finances. Equally importantly in the circumstances, he pointed out, PW was giving essential lectures in mathematics to the officer cadets billeted in North Court and also managing the financial side of their catering and other domestic arrangements. The Master finished by observing that men like PW were, 'though in mufti, to all intents and purposes just as much doing military work as if they were put into khaki and sent as privates to a reserve battalion, and, I venture to suggest, more efficiently useful in their present capacity than they would be in the other.' The appeal was heard in July and the Cambridge newspapers reported a verdict of 'no exemption', but despite this PW was able to remain at Emmanuel for the remainder of the war, perhaps because by then it was becoming clear that an Allied victory could not be far off.

News of PW's predicament had reached some of the absent Emmanuel Fellows, including Thomas Shirley ('Timmy') Hele, a 'medic' who since 1917 had been attached to a mobile bacteriological unit in Salonika. Timmy Hele's war-time correspondence with his wife Audrey (more usually known by her middle name Muriel, although in his letters Timmy invariably addresses her as 'Missus', 'Child', or 'Brat') is preserved in the college archives. It contains several passages that make pretty clear the feelings of both husband and wife towards PW. Hele, though only a year younger than Wood, had joined the Royal Army Medical Corps soon after the start of the war and in 1916 was posted to Greece. When Muriel reported that PW was seeking renewed exemption, Timmy replied: 'You really must admire him. I don't know exactly what P.W. is doing now – perhaps he is the only one left at Emm., & does the lot – though there must be a few older men.' When he heard that the exemption had been extended, he made another sarcastic comment: 'Ramsbottom is awfully pleased that P.W. has got exemption, I don't think. I told him your remarks a few days ago.' John Ramsbottom (1905), who left Emmanuel with a BA in natural sciences and went on to be a keeper at the Natural History

Muriel and Timmy Hele at about the time of their wedding in 1914

Museum, was also serving in Salonika and went on occasional fossil-hunting and bug-collecting excursions with Hele. A few weeks later Hele wrote more in this vein: 'I saw Ramshackle yesterday and he was vastly interested in your letters. I am glad to be able to tell him some more about P.W. He is always amused. In fact whenever there is a mail, people always enquire tenderly about P.W.' In early November, with the Armistice imminent, Hele's final comment was: 'I don't suppose any of the Emmanuel men will love P.W. very much when we get back'. This was an unfair judgement, as we have seen in previous instalments of this article, but PW was no doubt aware that his having spent the war at Emmanuel would, in the eyes of some people, forever carry a taint.

Following the cessation of hostilities on 11 November (PW contributing a celebratory bottle to the Parlour), the demobilisation of the armed forces began. The college archives contain a collection of letters written to PW in late 1918 and early 1919 by serving men who needed help to expedite their return to Emmanuel. Arthur Fletcher (1912) wasted neither time nor words, writing as follows on Armistice Day: 'Would anybody at Cambridge be able to get me out of the army now that this mess is over? I want to get out as quickly as possible, in fact tomorrow would please me.' Harold Boardman (1914) wrote in a similar vein, asking if PW could send the requisite forms to the War Office by return of post, adding: 'Your appearance, my dear Sir, was a shock to me last Thursday & were it not that you are the only one to help one just now, I should hesitate to add yet this affliction upon your thousand & one cares & worries'. Within weeks the trickle of men returning to Cambridge had become a flood, the statistics telling their own story: 33 men had been admitted to Emmanuel in 1918, most of them in October when the end of the war was in sight; in 1919 there were 233 admissions and even if one excludes those successive groups of British and American naval officers that replaced the cadet officers as occupants of North Court, there were still more than 160 new students. Returning second- and third-year men swelled the number of resident undergraduates in Lent term 1919 to more than 270, a huge contrast to what had been, only a few

weeks before, an echoingly empty college. Needless to say, those men who returned had been changed by their war-time experiences: they were older, some were married, and it was impossible to regard them as being *in statu pupillari* in the same way as before the war. New freedoms had to be conceded, one such being the abandonment (albeit after rear-guard resistance) of compulsory chapel attendance, which now proved impossible to enforce.

As the college began to settle down, the Governing Body, almost up to full strength again, was naturally determined to set up a fitting memorial to the Emmanuel men who had died during the conflict. As it turned out, the war memorial scheme was to drag on for four years. The progress of events cannot be followed fully through the official minutes of the Governing Body, for they are highly selective in what they record, but fortunately a much more informative (and entertaining) source is the private record of GB proceedings kept by Leonard Greenwood, Emmanuel's classics Fellow. On 19 April 1919 Greenwood recorded that there was to be a war memorial in the form of a tablet in the chapel cloister, 'Mr Gillick to be consulted …' This was Ernest Gillick, a sculptor who had carried out two previous commissions for the college. The first, completed in 1908, was the bronze profile medallion plaque of Evelyn Shuckburgh, Fellow, Librarian and historian of the college, which now overlooks the main library staircase. The second was the Adam memorial that forms such an effective focal point in the library's reading room. Dr James Adam, Platonic scholar and Fellow of the College, had died in 1907 at the early age of 47 while undergoing an operation to remove a cancerous growth. This commission had not been without its problems. The college had originally contemplated a plaque similar to Shuckburgh's, but subsequently asked Gillick to submit alternative designs and accepted his proposal for a figure of Philosophy, standing before a large panel bearing a bas-relief of the Muses, early in 1909. Adam's formidable widow Adela, on seeing the designs, told the Master that although she was no judge of sculpture she thought the design 'very good', but she nevertheless added a long list of detailed criticisms, some of which, at least, were passed on to Gillick, who

agreed that a less reflective marble might be better. In February 1911, prodded by a letter from the Master, Gillick reported that he had been working hard on the 'principal figure', but it was another two years before the memorial was completed. This delay ought, perhaps, to have been borne in mind by the GB when selecting Gillick as the sculptor of the war memorial, for history was to repeat itself.

The original idea of a memorial 'tablet' was soon superseded by a much more grandiose scheme, in consequence of Gillick's presentation to the Governing Body on 14 June 1919. Greenwood's slightly satirical memo of the meeting reads: 'Gillick down to interview the GB: gorgeous dreams suggested to hitherto untroubled souls. The Sculptor withdrawing, no small discussion followed. Agreed to ask him to let us know what could be done for £750.' After nearly a year had passed, Gillick attended another GB meeting in May 1920, bringing with him designs for the proposed memorial, which the GB approved. Although none of these designs is preserved in the college archives, we can get some idea of them from the 1919–20 *College Magazine*, which informed members that

> it has been decided to erect at the south end of the Chapel Cloister an altar in stone, supporting a recumbent figure and bearing in front the College Roll of Honour, spaced out by years and engraved in Roman lettering. The sentence 'Is it nothing to you, all ye that pass by?' will be carved on the monument above the figure. The recumbent figure is that of an officer, in uniform, with head reposing upon an open book, a shrapnel helmet at his feet. The lines of the body, accentuated by the normal lighting from the Front Court, are to indicate life and immortality rather than repose and death. Mr Gillick of Chelsea, is engaged upon the execution of the work. It will be remembered that the Adam Memorial … is his work also, and it is anticipated on that account that the College War Memorial will be a work of art no less worthy of admiration.

Months then passed without any measurable progress, Greenwood recording in January 1921: 'Nothing much doing. Master to stir Gillick up'. The sculptor was by this time also working on a large and elaborate cenotaph for Glasgow's George

Square and a few weeks later the GB – or at any rate a majority of it – had a complete change of heart about the design of the memorial, as recorded tersely by Greenwood in February 1921: 'War Memorial. Large scheme rejected 5–4. Painful scene with Gillick.' In the weeks following it seems that there was some doubt as to whether Gillick would continue to be involved with the memorial at all, but in the end he did accept the instruction, Greenwood noting in May 1921 that 'Gillick will do his best'. An official GB bulletin issued on 5 May made no mention of any unpleasantness, merely recording that it had been resolved that 'the inscription shall consist only of the dates "1914–1918" and the full names of the men commemorated, arranged in the order of their deaths. A monumental effect is not desired … it is felt that the whole thing should be very simple. The names should be easy to read, and the dates in years should be given in the text. The beauty of the work would lie in the character of the lettering and in its spacing and arrangement.' The reduced scheme, which reverted to the idea of a wall-mounted tablet, still took nearly 18 months to complete, for it was not until October 1922 that Greenwood could record: 'War Memorial done', the tablet finally being affixed to the south wall of the chapel cloister early in the following year. Greenwood's last word on the matter was his note of 20 January 1923: 'Gillick to be asked for his bill and to dinner'.

Current taste may favour the dignity and simplicity of the war memorial as executed, rather than the elaborate monument that had been rejected. At first glance the inscription on the Purbeck marble tablet appears to be entirely plain, apart from the crest and heading (which had been decided upon by the GB in January 1922) but a closer examination shows that Gillick varied the lettering by including at random intervals 'ligatures', or joined letters, which creates an attractive effect. Several difficult decisions had to be made concerning which names should appear on the memorial. It was agreed that the 19 men who had been accepted as entrants to Emmanuel, but had never come into residence, should be included. In the unusual instance of a man having been a member of more than one college, his name seems only to have been recorded if

Emmanuel had been his more recent abode (the case of Ernest Stratford Pipkin, omitted from Emmanuel's memorial but present on Downing's, was mentioned in a previous instalment). Servicemen who died from illness rather than as a result of fighting were included on the tablet, many of them having died in Africa and Asia where they had been stricken by tropical diseases. Deaths resulting from wounds were of course regarded as war casualties, but a few cases were less clear-cut, such as that of Herbert Pearsall, whose death from pneumonia in March 1919 was attributed to earlier gas poisoning. His name was not, in the end, included on the tablet, even though it had appeared on the official college War List issued at the end of the war, at which point he clearly was considered a war casualty. A similar case was Arthur Poole, who had come to Emmanuel in August 1918 having been invalided out of the army. He died on 23 November 1918 from pneumonia following influenza, but although it was thought that his constitution had been weakened by trench fever and the serious wounds he had sustained in October 1917, his name was not included on the war memorial. Two 1919 deaths were included in the tablet, the first being Edward Fisher, naval surgeon on HMS *Vigorous* (a 'drifter' or depot ship serving Larne harbour), who committed suicide on 12 May 1919 while being treated for mental illness; the other was Hubert Wilson, who 'died of wounds' in December 1919, his injuries having been sustained in September 1918 at Salonika.

Given the scale of the conflict and the imperfect nature of the information available to the college, the memorial tablet inevitably contains a few inaccuracies. Patrick Junor, who was killed in East Africa, appears under 1914 but it has recently been established that he died in June 1915; Frederick Stephen, who was killed at Loos in 1915, has been included under 1917; Frederic Ashcroft's year of death is given variously in the *College Magazine* as 1916 and 1917, but although he appears under 1916 on the tablet (as 'Frederick') the Commonwealth War Graves Commission records the year of his death as 1917 and, given the known service of his regiment, that seems more likely to be correct. Lindow Huddart, who died of malaria in 1917 while serving in Nigeria, appears as Heddart on

the memorial although Gillick had engraved the name correctly; unfortunately during later restoration work the vowel was re-cut wrongly.

The war memorial contained the names of 123 men on completion in 1922, but a further name was added at the foot of the memorial tablet soon afterwards: that of Edward Thompson-Smith, who had died, unbeknown to the college, in 1915. When more casualties subsequently came to light, however, it was decided that the tablet could not be further altered. There are four known omissions:

Philip Bridson. A research student from New Zealand, Bridson was in residence for only one term, Michaelmas 1912. He did not keep in touch with Emmanuel and the college had no knowledge of either his war service or death until recently. Bridson served in the New Zealand Machine Gun Corps and was killed in 1917 at Messines.

Edward Cooper. Admitted to Emmanuel in 1901 but only kept two terms. A captain in the King's (Liverpool Regiment), he was later attached to the 1st King's African Rifles. He was killed in German East Africa on 4 August 1916 and buried in Iringa Cemetery, Tanzania. Again, the college seems to have been completely unaware of his war service or death until many years after the completion of the memorial.

Edouard Jacot. This research student, the son of a Swiss émigré watch-maker who had settled in South Africa, was killed in 1917 while serving with the Royal Flying Corps. He was recorded as missing in action and presumed dead, but the College was perhaps unable to obtain definite confirmation of his death, and so omitted him from the war memorial.

Ernest Lucas. Lucas, son of an elementary schoolteacher from Bristol, trained for three years as a pupil teacher before coming to Emmanuel in 1906 to study Natural Sciences. Whether he returned to teaching after graduating is not known. The College was aware that he had been serving as a Private in the Royal Army Medical Corps and at some point was told that he had died of wounds in October 1918, but notes in the archives suggest that a failure to

remove Lucas's name from the College address book led to a subsequent mistaken belief that he had survived the war.

The war could not be forgotten, but it was not allowed to cast a pall of gloom over the men who had been fortunate enough to return to the college and complete their degrees. The spring and early summer of 1919 were blessed with unusually clement weather and Cambridge was almost hectically gay with parties, dances, fêtes and galas, all enlivened by the continuing presence in the colleges of many army and navy officers (including a large American contingent). May Week was of course the culmination and Emmanuel College's festivities began on Monday 9 June, when it hosted a concert and garden party, followed the next day by the 'Emmanuel dance' (not a full May Ball, which had to wait until the following year); there was also an informal tea party in the Master's Lodge on the thirteenth. The Master's daughter, Elspeth Giles, who had just finished her first year at Girton, participated enthusiastically in these events, having to drag herself away from the dance at four am: 'I didn't want to leave but was tired – as I had been dancing off and on since four in the afternoon – 12 hours dancing vanity of vanities!' Elspeth also attended the May races, which according to *The New Cambridge* were 'as full of cheer and gaiety as even in pre-war days', with 'Lilac, May and Laburnum in flower! Rowing on the Cam instead of Big Guns and the Somme … Here's to our Peace May Week!' Although Emmanuel performed with mixed success in the main races, the Royal Navy officers in North Court raised a crew for the fixed-seat events and defeated all comers. They had been coached by Douglas Reid, captain of the Emmanuel Boat Club, who had returned to Emmanuel in Lent 1919 with an assortment of battle scars and the Military Cross, having spent four years with the Royal Field Artillery. According to the *College Magazine* the naval officers' boat was 'colloquially known as the "Drunkards' Express", due to their total disregard of all rules of training and the Plymouth gin label they flew as their flag'.

The first post-war *Emmanuel College Magazine* was produced in the summer of 1920. The editorial acknowledged, but did not dwell on, the horrors of the war:

May Races 1919: Emmanuel College Pagans' Club barge, moored at Morley's Garden. Edward Welbourne, later Master, is standing on the prow

> There are two paths leading back across the fields of memory to the 4th of August, 1914. By the one we flash back in a second of time, unconscious of the turmoil and upheaval through which we glide. By the other we struggle back slowly and painfully, conscious of every inch, every detail of our journey. But, whichever of the two paths we choose, we are forced to admit at our journey's end that Cambridge in the summer of 1914 was strangely like the Cambridge of to-day. The passing of the war has, it would appear, caused little visible change in our outward surroundings.
>
> It is not now seasonable to draw any picture of the College as it was during the war. The most eloquent tongues have spoken, the most graphic pens have written, of Courts and Lecture Rooms emptied of their rightful occupants, of services nobly rendered to the State by Cambridge men in home and foreign fields alike. But one by one men invalided from active service returned to these quieter surroundings, so that after the Armistice the way was prepared for the recovery of Cambridge traditions. As one looks back after a period of eighteen months it is splendid to find that the College has so successfully picked up the threads which seemed to have been irrevocably lost. The old traditions are restored, fresh as if they had never faded.

This heartfelt expression of gratitude that Emmanuel had, almost miraculously, regained so much of its pre-war character is very moving, for, as we know from the correspondence with PW, memories of happy Cambridge days, and a yearning for their restoration, had sustained many Emmanuel men during the long years of fighting. Now those hopes had been fulfilled and as it turned out, Emmanuel had entered upon what many members later recalled as a halcyon period.

Amanda Goode, *College Archivist*

Three Future Fellows: Emmanuel Dons in the Great War

During the First World War, Philip Worsley Wood (PW), who was Emmanuel's acting Senior Tutor while many Fellows were away on war work, encouraged correspondence from college members serving with the forces. Among the surviving letters are a number written by those who were to become Emmanuel Fellows within a few years of the war ending. Edward Welbourne was elected a Fellow in 1921 and became Master in 1951, serving in that capacity until 1964. John Cameron (Jock) Wallace was elected to the Fellowship in 1921 and lectured in engineering until his retirement in 1948. Robert (Bobby) Gardner, who joined the Fellowship in 1919, was Bursar from 1920 to 1960. It is noteworthy that all three men were awarded the Military Cross: Welbourne and Wallace in 1917, Gardner in 1918.

Edward Welbourne

Edward Welbourne, who matriculated from Emmanuel in 1912, went from gaining a First in the 1915 history tripos to army service within the space of a few weeks. Those who remember Welbourne as Master will not be surprised at the tone of his letters to PW. Clearly the army had difficulty in assimilating this already eccentric and very colourful character, as he spent much time attending one training course after another before eventually being posted to France. In his first letter (from Tynemouth, 20 October 1915) we hear of his battles with the army, particularly over uniform, especially puttees, and it is no surprise that Welbourne was not very complimentary about his colleagues.

> I was warned solemnly by an ancient schoolmaster, that the army would do me a world of good, would make a man of me. The little I have so far seen of it has made no change. I have worn my boots comfortable, have stretched the tightness out of the uniform, which I had made loose and almost am reconciled to a belt around my middle. I hardly think that I ever shall have any love for puttees. They are [a] damnable invention … Fortunately we turn out to breakfast in flannels, to dinner in slacks, so two meals are eaten in comfort. You might be amused if you saw me doing Swedish drill. I can manage the dance movements, even the beautiful bends for which one uses a form. But I cannot jump rows of forms. I have not altogether fallen in love with my companions. We have a lecture 9–10 after a dinner which starts at 7.30, and finishes about 8.30. In that short half hour many of the men imbibe enough to interfere with their speech – almost all come in with wet & glistening eyes.

With basic training over, we find Welbourne writing from Cannock Chase on 18 November 1915. By this time he had been commissioned into the seventeenth battalion, Durham Light Infantry, a training battalion. The location was more to his liking, being away from the fleshpots of town life endured in Tynemouth, and once more there are colourful descriptions of his companions, although he was able to enjoy some intellectual debate. One of the men:

> … is a parson's son, who went into an inferior branch of the Indian Civil Service. He has never attended a parade since he has been here & daily he attempts to get out of the Army. But a man like this in such a place is a treasure. He talks unceasingly. Of me he is a little afraid for he has discovered who I am & what I am & fears to mouth his theories about perfect democracy & the international anarchists. But discussions on political philosophy are very welcome. I may say that from what I can see – the whole of us are here merely to get us out of the way. We make a daily show of doing something.

Edward Welbourne, standing on the extreme right, in the uniform of the Durham Light Infantry. Unlike the other officers, he is not wearing puttees

Like many Emmanuel man serving in the army, Welbourne had left his rooms in college as they were and he asked PW whether he would mind looking in the tin trunk in his room to see if Mallock's *Social Equality* was there and to send it on to him. On 2 February 1916 he described a recent attack by Zeppelins in the Midlands. Typically, his observation was:

> At Walsall also the principal urinal was blown to bits and relief of nature in that town is for the time impossible. Birmingham was missed altogether. It will do those good Midlanders a service by reminding them that a war brings more than work orders, prosperity & opportunities for waste. Out of the 400 men here I have found a few with whom I can talk. I am just beginning to pine for

> my freedom again, for the clean comforts of life and a rational conversation around a fire.

March 1916 saw boredom settling in, with little to read when not being on the receiving end of boring lectures on 'bombing', ie the use of grenades. Still in the training camp at Cannock, Welbourne noted the difficulties in 'encouraging' volunteers, with the few who turned up being unfit for service:

> I hope this will not reach you when conscription has put you into khaki but I fear the worst. For instance the King's Liverpool sent to 400 & had 12 turn up, all rejects. To other 400 & 8 turned up similarly unfit. When they asked the War Office what was to be done, they were told to send them gentle reminders weekly!

The Easter Uprising in Ireland saw Welbourne taking a more active military role with promised leave cancelled; he was also made orderly officer on two successive weekends and hence confined to barracks, but by 29 May 1916 he was once more on a training course, this time at the school of musketry in Strensall near York (the army had replaced muskets by rifles many decades before, but terminology had yet to catch up). Fortunately for him, he had done much of this before and found time for more pleasant pastimes, although he still had to come to terms with the army way of doing things:

> ... all work has a reward or so the moral stories of youth teach. The reward is three weeks at the command musketry school and here I work from 9–4.30. I have done all the work before so that really I sleep in the sun from 9–4.30. I have walked in the long evening through miles of beautiful fat marsh country with juicy grain and wet hedge bottoms, with birds big & small, and insects which bite. Long hours are distressing and useless work still more distressing. But I soon learned the old soldiers' habits. One thing I realise more and more clearly the army is no place for honesty or independence and both I have shed until better times allow me to put them on again. Perhaps what I want is freedom for sensible action for the army is driving me into the creed of the conscientious objector. I feel my power of choice, of decision, of self guidance trying to show itself & lacking opportunity.

In July Welbourne was back at Cannock but noted that of the big draft of 20 men that he had missed some weeks ago, five had

already been killed and one was missing. By 1 September 1916 he had travelled to France and joined the nineteenth battalion Durham Light Infantry as it came out of the line after the battle of Bazentin Ridge:

> We live & move & have our being in places where senior officers seldom come & never stay, where the specialists, such as machine gunners or trench mortar fiends, crawl with tin [hat] on head, and speak in whispers. Engineers come along & with a lordly wave indicate vaguely the work to be done … a point of this line is a huge crater which we occupy and to which the officer on the watch beats a strategic retreat when he hears of the coming of brass hats. It always pleases when in the retirement and quiet of the crater one hears the clatter of a departing brass hat, who has found out suddenly which way he is coming.

By October Welbourne was back in a training environment, in a comfortable billet:

> You may remember a letter [not preserved] full of a wonderful marble hall in which I was billeted. Fortunate chance sent me back to it. Some genius discovered that this place of fabulous comfort was the one place in which bombing training was possible. He put a large label on the best bedroom of the house 'Permanent Room for Battalion Bombing Officer' [ie Welbourne].

Being on training courses was all very well, but the instructors (and senior officers) did not seem to know what life was really like in the trenches:

> As a rule, a patrol divides its time fairly equally between avoiding wire, disentangling itself from wire not avoided in time, and dodging bullets most of which seem to come from our own side. But the official mind pictures it with a revolver in one hand a bomb in the other, two more in each pocket a slung rifle and a bayonet between the teeth, a telephone wire trailing behind, a machine gun in close proximity, special silent boots & cats eyes of the best advance brand, microphone ear attachments, and a gift for realistic description on small evidence.

Officers going on leave expected to be asked about the new technology used for the first time during the battle of the Somme and Welbourne was able to put to good use his research experience to build up a picture of the first tanks:

> This afternoon I spent collecting all the locally known facts about 'Tanks' to make up a working account for those going on leave. For the people recently returned have given the news that there is no place at home for a man who has never seen a tank. Historical work constructing a connected story from disconnected untrustworthy facts made me the most suitable man and the job was finished this afternoon.

By January 1917 we find Welbourne in hospital recovering from wounds received during an action in November 1916, after which he was awarded the Military Cross:

> Wounds go on well. Considering what I got, things have progressed at great speed though I have still a tube remaining and have not got out of bed. You are right about the boredom. I divided [Christmas] day between a hospital train, and a boat in Havre, a boat on which I fared sumptuously and yet quietly.

Within a couple of weeks he was writing again, with more on the horrors of being in a Lancashire hospital. It compared poorly with the attention he received in France.

> All the M.O.s are somewhat elderly men, local specialists continuing in their ordinary practices and all of the rank of Lieut Colonel. Consequently, patients get very little attention. And since the M.O.s are so slack the whole place is slack. The orderlies are badly trained, badly disciplined, with a very clear idea of what duty compels them to do, and a dislike which would thrill a Clyde boiler maker, for exceeding that duty. Daily you have the theory expounded to you that bed in a hospital is better than a trench, a tiresome theory.

The war was to continue for nearly two more years, but no further correspondence from Welbourne has survived in the college archives.

John Cameron Wallace

'Jock' Wallace, who graduated from Emmanuel in 1912 with a First in mechanical sciences, was elected to the Fellowship in 1921 and taught engineering until his early retirement in 1948, while continuing to look after his family business interests in Glasgow. At the outbreak of war he joined the Royal Engineers, in an area which

after the First World War would be the remit of the Royal Signals. In June 1916 he wrote to PW whilst on sick leave recovering from the effects of a year in France. His interest in the internal combustion engine (of which more anon) is shown by his description of his illness:

> I am not yet pushing up the daisies. I have had a lurid year at Wipers Belgium and Arras France and nearly, with my usual luck, appeared in both the Honours Roll and the Roll of Honour, but not quite. I am in with corroded carburettor and exhaust pipe and am being treated with chemicals instead of being dismantled and fitted with spares, so far at least.

His health precluded a posting to the Royal Flying Corps, but he sought support for a posting to the Ministry of Munitions, where Bertram Hopkinson, professor of mechanism and applied mechanics, was in the aviation department:

> All three applications to fly have been stopped, but unless something clever or nice like Munitions turns up, I shall try again. Can Roberts or Hopkinson do anything in the way of getting me a job in Munitions, I should be rather good at that. One year of destruction is enough and I am ready for a little construction by way of a rest.

A couple of weeks later he sent a more detailed description of his illness and recuperation under the watchful eye of a doctor uncle:

> I wrote to Prof Hopkinson. The Hospital tired of me after two months, and I was passed off to my uncle, who being a doc gave me some stuff which helps things thro' me: PEPCENCIA, sort of digests things for you, looks suspicious but quite good. The ulcer inside has healed but as they didn't make a *mechanical job* of it, I shall improve slow and perhaps be a bit of a dyspeptic, good excuse for bad temper and fedupness. I shall try to write something [for the *College Magazine*], but can't think of much worth saying except that for five minutes a month I was afraid I was going to be killed & for the rest was afraid I wasn't. Eight months at Ypres was not funny, and I got worse & worse as I got no leave or rest, the first of which when due being taken up by a rush back to a Gas Attack and the second in a wild trek south to relieve the French when they took out troops for Verdun.

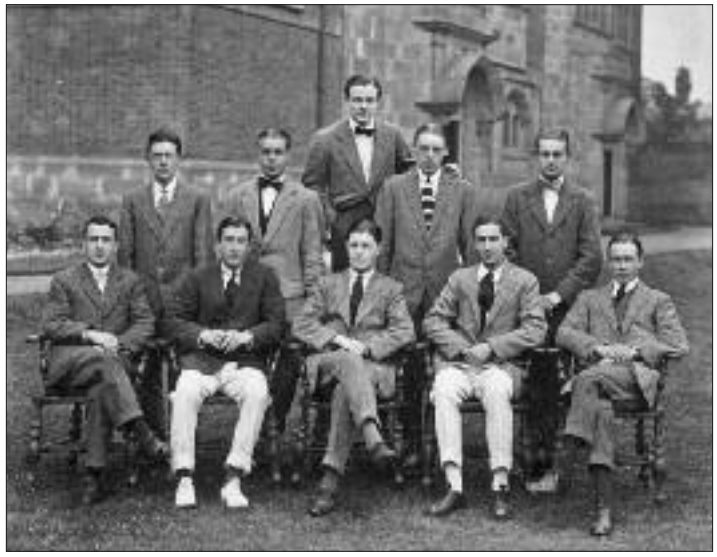
This article would presumably have been a successor to his earlier piece, published in the *Magazine* of August 1915, but it seems never to have been written. The earlier article told of his experiences taking a group of motorcyclists to France and opened with a description of the ferry across the channel, clearly showing his interest in navigation. For reasons of security, Wallace turned to algebra! The quotations below are from Wallace's original draft, rather than from the polished version that appeared in the *Magazine*:

> At the disgracefully early hour on the xth I collected the party of (n + 4) motor 'bandits', mostly Irishmen and each complete with Bicycle Motor, new – brand –, Revolver (much in evidence) and ammunition for same (in sealed packets Not to be opened till further orders, for obvious reasons) … with the help of a Tug and a Pilot we cast off about y o'clock. Here at last was first hand evidence that we really are at War: Coast Defences & moving batteries fully manned, Scraps of the Fleet, cleared for action, one which was to form our escort. It was a grand sail. A fine breeze and a fine night with a full moon occasional obscured by dense banks of cloud, full speed ahead all out and lights out, with only our escort giving us a good lead and occasionally exchanging signals. The First & the Chief Engineer, as usual were not Irishmen and so, after inspecting all the machinery and exchanging home news, I assisted in the navigation, without which a voyage to me is dull and uninteresting and from which I could scarcely be deterred, even if put in irons.

Once disembarked, there were the twin problems of riding on the wrong side of the road and a foreign language, but Wallace had answers for both:

> The disembarkation was negotiated without casualty, as was our first experience of left-handed traffic on the run out to the Base Camp. On visiting the town to replenish the machines the draft seized the opportunity of airing their French in the shops & streets. True to his national characteristic Tommy has impressed his own language on the French and where he hasn't impressed the actual words he has impressed the idiom by a literal translation … Warned by the fate of previous drafts, I held on the morning of our departure a special parade for instruction in the sentence 'Où sont les autres motorcyclettes sur le chemin à Z' and for affixing handkerchiefs to the RIGHT arm. The traffic in our first and fortunately our only, big town retired in despair up side streets, that is all except two trams which gave much trouble. We reported well under record time and all present, another record, – quel achèvement, je peux vous dire!

Clearly life away from the front line was comfortable and Wallace was even able to apply his studies: 'I got occupied with quite interesting work and actually used (for the second time, mark you, since going down two years ago) some of the theory I so laboriously assimilated at Cambridge'. Wallace was to get his posting to munitions and worked for a time on aviation matters with fellow Emmanuel graduate Bennett Melvill Jones at the research establishment at Orfordness. If Wallace wrote to PW about this work, the letters have not been preserved in the college archives.



The XII Club in 1912; Jock Wallace is standing on the extreme left. In the background is the library (then known as the New Lecture Rooms), before its extension in 1930

Robert Gardner

Robert (Bobby) Gardner was elected a Fellow in 1919, becoming Bursar in 1920, a post he held for 40 years. He was also president of many of Emmanuel's sporting clubs and societies, and made helpful annotations on the pre-war team photographs of those who survived the conflict and those who did not.

The outbreak of war found him researching Roman military history in Italy. He joined the King's Own (Royal Lancaster) Regiment – a territorial unit – and in October 1914 we find him writing about the dangerous task of guarding the Great Western Railway, based at Hayes and Harlington station. This duty was given to his territorial unit as regulations prohibited them from being deployed overseas. It might not have been the Western Front, but there were casualties all the same:

> This Battalion – the fourth in seniority of the Territorial Battalions – is recruited from the Furness district of North Lancashire. At present it is wearing away the edge of its valour upon the Great Western Railway from Paddington to Maidenhead. But we lose a man per week – trains for choice, but sometimes by a stray bullet from a friendly rifle. We have volunteered for foreign service and there is not a man who would not be glad to hear that we were to leave this monotonous business for something more exciting.

Gardner went on to give a vivid picture of the other members of the unit:

> The officers, at least the old lot, are of a homogeneous type, as they are mostly public school men. The senior officers are rather more delectable than the juniors, there being among the latter many amiable incompetents.Three splendid Irishmen are the salvation of the new men. The rank and file are much more interesting than the officers. Almost to a man they come from Vickers' works at Barrow and are dreadfully aristocratic workmen. They are fond of getting drunk and have attached to themselves a great number of 'friends' from the neighbourhood.

By February 1915 Gardner was writing from Sandwich, a place he found attractive, despite the rain. Since his previous letter the battalion had got down to serious training. Those who had volunteered to fight looked on in envy whilst other, more junior, battalions went to France:

> … to the accompaniment of anguished and tearful farewells from all the wenches in the neighbourhood our grimy and beer-sodden troops left the Great Western Railway. At Slough we went at it tooth and nail – from noon to dewy eve. Before breakfast we hared and hopped over miles and miles of deserted streets. After breakfast we lay on the drill ground and flogged the air with uplifted heels while brazen voiced and iron hearted drill sergeants cursed us to all eternity. And so on till the weary herd wound slowly o'er the lea. I liked Slough and wasn't half displeased when the order came to join the rest of our Brigade at Sevenoaks [but] when we did manage to get settled down here, things were quite tolerable. 400 of us were sent to Sandwich for Musketry. Sandwich must be a very jolly place in the summer when the quaint old streets and houses are lit up by some respectable sunshine. Even in December amid the almost continuous rain I would have been content to live and die there. We manned trenches on Christmas Eve and Christmas Day from an unmentionable hour in the morning. We should have been as much use in stopping a determined raid as the woad-stained Britons were in stopping Julius Caesar. Last week, went to Tonbridge with five other unfortunate officers and 120 men to act as 'police traps' on the main roads leading into the town and deliver up to justice any enemy agent we discovered directing the flight of Zeppelins by signals from motor cars. My picquet succeeded in nailing Rudyard Kipling but we did not question his loyalty. Our future is a mystery. Entre nous, there is much talk that the remaining three Battalions of our Brigade are going abroad very shortly and that we are being left behind, as rejected for Foreign Service.

Correspondence with a former colleague in Rome found Gardner in conflict with the censors in his letter of April 1915. His attempt at humour did not seem to have been appreciated:

> My reputation for 'humour' was exploded about a month ago. A friend of mine in Rome – the Director of the School there, to be exact – happened to be dramatically arrested as a German spy. The circumstances, described and embellished in the manner peculiar to Italian journalists, reached me and caused me great amusement. I wrote back – in what might be described a jocular strain – congratulating him upon his escapade and adding a good deal of information about our doings. Back came an indignant reply saying that from what was left of my letter (which had been heavily censored) he gathered we were at ------ doing ------, – and

> advised me always to print and underline all professedly humorous remarks, or there might be danger of their being unrecognised.

Writing from Tonbridge, there were interesting places to visit but being in billets was a nuisance:

> [We] got back to Sevenoaks and I found myself billeted with a curious old fossil who knew more about seaweed and lichens, bugs and beetles, herbs and creeping things than anyone in the three kingdoms. I was sent there because I didn't smoke and he hated it as much as the Dixie Professor of Ecclesiastical History [Henry Melvill Gwatkin]. It is rumoured that we are to go into camp before long – and it will be a grand change in many ways. Billets are a nuisance and landladies are an intolerable curse, while the visitation of ninety houses after parades are over is an unwelcome business.

Frustration continued as the battalion was still overlooked for posting to France. However, it was under-strength, with many of the shipyard workers recalled to reserved occupations:

> [We] feel indignant that we, the senior battalion in the Brigade and almost the oldest Territorial battalion in existence, should not have been sent out along with two battalions we always considered our inferiors. I cannot personally see any prospect of seeing any service on the Continent. This is rather galling but I am sure we shall be wanted sometime.

It was not long before Gardner had his wish as the battalion landed in France in May 1915. At the end of June, he was writing about his experiences during two months in France:

> We tramped about quite a lot before we got anywhere near the 'bombardment' area – or rather, to be correct and fashionable, I ought to term it the 'egg' area, for military slang includes under the term 'egg' anything from a 'pipsqueak' (a 'hand grenade' or anything vomited up by 'trench mortar') up to 15" shell, through all the intermediate varieties too numerous and detestable to mention. Some of the villages are quaintly dilapidated, all are distinctly filthy and unkempt. Those in the vicinity of the 'egg' area are a grievous sight. One ruined village was the most pathetic and ghastly thing I have ever seen. The street was a mass of 'egg' holes. Some houses had been entirely demolished by shells. The only thing left untouched was the large village crucifix. Everything was dank, lifeless and altogether most pitiable.

Gardner was writing after taking part in the fighting at Givenchy. This attack had been a costly failure, which may account for the despondency later in the same letter:

> We have had several tours of duty in the trenches and took part in an attack, tho' as support to the firing line. Ordinary life in the trenches is not so very exciting. So far as I may be allowed by the censors I can only say that it is a dreadful shambles – and seemingly futile. [The] position of the two lines has not changed appreciably since the winter. But we have made considerable advances at various points along our front tho' at a terrible cost – 'stale-mate' seems a probable solution. People, I think, are only just realising the terrible gravity of the situation.

Gardner's next letter was from home in October 1915 following what he wryly called an 'almost too successful' attempt to commit suicide by (accidentally) shooting himself in the leg:

> By way of punishment I was in Hospital at Etretat and in London and since then have been revelling in sick leave and 'semi-invalidism'. I cannot do much walking. Tho' everybody who has once been to France shudders at the prospect of return, (whether he pretends to like it or not) one feels rather out of it when the Bosches are being hammered as they are at present.

The last surviving letter to PW was sent in May 1916 from a camp at Etaples, where Gardner was teaching musketry as a member of the permanent staff:

> I was put through a Course of Instruction in Musketry and was sent out as Musketry Officer on the Permanent Staff of a new Training Camp here at Etaples, just south of Boulogne, one of the three Reinforcement Bases of the B.E.F. I am Mess President as well: and so fully qualified to appreciate the difficulties of a College Steward [PW was acting in this capacity for the duration].

No further correspondence exists in the college archives. Was this out of embarrassment because he failed to provide the contribution for the *College Magazine* which PW had requested?

> No. That contribution did not get lost in the post, because it was never posted. Time & again I have sat down & tried to write something but have come to grief before writing a page or two. However, your note makes me feel abominably guilty, but I'll try again …

Robert Gardner's younger son, John (who like his elder brother Richard followed his father to Emmanuel) has written a brief biography of his father, which follows this article.

Phil Brown (1964)

From Bolton to Bethune to Bursar: A Memoir of Robert Gardner MC, MA

My father was born in Bolton, Lancashire on 31 January 1890 to Richard and Georgiana Gardner: he was a senior manager (chief clerk!) in a cotton manufacturer's and she had been born, bred and became a schoolteacher in Wigan, her home town. Dad began at a junior private school and progressed to Bolton Grammar[1] School from 1900 to 1908, where he had a distinguished record of academic achievement besides being head of school for two years and in the first elevens for cricket and soccer. He then went up to Cambridge in 1908, where he matriculated from Emmanuel as an exhibitioner in classics and was awarded scholarships after gaining a First (with distinction in history) in Parts I & II of the classics tripos in 1911 and 1912. Often, but I believe not always, he would bicycle to and from home in Bolton at the beginning and end of term.

After gaining his degree in 1912 he was awarded a Craven studentship to research aspects of Roman military history, based at the British School in Rome. He lived in Rome and Aquila (in the Abruzzi, a mountain range that he loved and revisited with my mother after his retirement in the 1970s) until 1914. There is no record of the fruit of his researches, but in later years he contributed to the *Cambridge Ancient History* and wrote the Loeb

[1] In 1915, following an endowment from Lord Leverhulme, the boys' and girls' grammar schools in Bolton were amalgamated as Bolton School (Girls' and Boys' Divisions)

translation of Cicero's *Pro Balbo.* He also was proud of the fact that he had walked from Rome to Taranto, right under the heel of Italy. There and back? I think so; there were few other ways to do it in those days.

I cannot say for certain that it was his innate patriotism (or Kitchener?) that brought him back to England before the outbreak of war in summer 1914, but the fact that he was commissioned into first & fourth battalion (territorial) of the Royal Lancaster Regiment in August 1914 speaks volumes. I am certain that he felt that 'this is what one does': rather a contrast to some of the Emmanuel Fellows at the time whose instincts were towards pacifism. So off he went to war but maintained letter contact with PW Wood, the acting Senior Tutor on whose broad shoulders much of the running of Emmanuel College fell. There is no other record of Dad's close attachment to the college at that time but it is quite clear to me that,

Robert Gardner, who ended the war as commanding officer of his battalion. He is wearing the ribbon of the Military Cross, which he was awarded in June 1918. Courtesy of John Gardner

but for the war, his clear and early choice of career was an academic life based on Emmanuel.

He was appointed a Junior Fellow in May 1919 before he had returned from the war. And, in short: 'He had a good war'. What did that involve? Going off to France as a lieutenant with the battalion, being stationed in trenches near Bethune at a village called Festubert and, four years later, ending as (acting?) lieutenant-colonel after participating in the last great battle in April 1918 near a village called Givenchy, a few kilometres from – guess where? – Festubert!! He wrote for the National Archives a clear and succinct account of this battle, which typified the countless battles of this most pointless of wars. Dad's promotion to commanding officer of the battalion came some months later following the sad incapacity of the then CO and he led them to Leuze in Belgium, where he announced the Armistice to the battalion and from where he eventually brought them back to a victory parade in Lancashire in May 1919 and then, presumably, in decent pace returned to Emma.

This 'good war' – to repeat – was I suppose a typical experience for those fortunate to survive: being transferred from one part of the front between Dunkirk and Amiens to spend weeks in the appalling conditions of trench warfare, snipers, artillery, skirmishes, minor battles, gas, rain, snow, deep mud, searing heat, unending danger, endless boredom, good, bad, friendly billets when out of the front line but with the constant threat of a miserable death or wounding for months on end. Dad did not escape unharmed. In July 1915 he accidentally shot himself while cleaning his revolver and after an extreme, almost fatal, illness (blood poisoning?) he was nearly but not court-martialled for deliberate self-wounding. After hospital in Blackpool and sick-leave back in England he recovered and became musketry officer at the training establishments in France near the Channel coast. Happily he could return to his unit in September 1916 during the battle of the Somme and then served unharmed, gradually progressing to captain, adjutant, major and beyond as his standing improved and fellow officers fell. The regimental museum has photographs of Lieutenant Gardner standing at the end of the row in a battalion

officers' group taken before departure to France in May 1915 and another of Colonel Gardner sitting in the middle of the May 1919 officers in Leuze. Dad is the only man to appear in both photos, the only one left to fight: rising in a mere three-and-a-half years from the most junior officer to the most senior, illuminating the senseless absurdity of this period. Between the wars, once a year Dad disappeared 'up North' to attend the annual reunion of the regiment to which he remained so loyal and of which he was so proud.

Once settled into Emmanuel he was soon appointed Bursar in 1920, a post he held until 1960, and the college's finances most certainly did not suffer. However, I will never forget the tensions at home when the 'annual audit' was in progress. He became a senior Fellow in 1923 and lectured in classics until 1957, which was quite a strain considering his ever increasing war-created deafness and his continual and losing battles with early deaf-aids. After 'retirement' he remained as long as possible the treasurer of the Amalgamated Clubs for which, above all, he may be remembered for the 'Bursar's Binges' to celebrate collegiate sporting successes.

His only other claim to fame was in the 1940s, when the chancellor of the time initiated (very briefly), a tax on capital and Dad in his fury wrote a letter to him – accompanying his cheque – quoting from Tacitus that the Emperor Tiberius said *Boni pastoris est tondere pecus, non deglubere* ('The good shepherd shears his sheep – he does not skin them'). Extraordinarily my brother and I met, during our National Service, two separate employees of the Inland Revenue who both recalled 'some angry academic' writing this letter, which was circulated widely around the departments.

My father's contribution to his beloved college will never be forgotten by those feasting in the Robert Gardner Room, so precisely named to ensure progeny are not thus vicariously honoured. It is a permanent and most appropriate memorial to a lovely, gentle and loyal Emmanuel man.

John Gardner (1951)

The Emmanuel College Chandelier

I was very pleased to receive an email from the Master, Dame Fiona Reynolds, asking if we could make a new arm for a chandelier in the chapel at Emmanuel College, as one had recently broken.

I visited in November 2016 and met Fiona and the Dean, Jeremy Caddick, and climbed up a tall set of steps to inspect closely the chandelier. I could tell that it had previously been fitted with at least two reproduction arms and that the broken one was thankfully one of these. I could tell from the colour of the glass and the way they were constructed that they had probably been made in the last 50 years. It was obvious that some of the arms were not sitting level with others and that some of the plaster holding them into their metal mounts was becoming old and crumbly, and so it would be good to re-set them all in fresh plaster.

At the beginning of December I sent my quotation to remove the chandelier and put up a temporary one, to make one new arm and one new drip pan, and to deliver it back and install it. I also sent a separate quotation to remove the brass mounts from all the arms and re-set them in fresh plaster. With this work being done on a worktable in our workshops, we could make sure they all sat level and upright. This element would not be covered by the insurance but was paid for by the college. The repairs were approved by the insurers at the end of May 2017 and because of our heavy workload every summer, we were unable to remove the chandelier and put up the temporary one until 7 July.

The man who took it down was our top chandelier restorer and builder, Pat Cooke, and whilst he could remove all the arms and drip pans, he found it impossible to remove any of the glass stem pieces or the finial because the metalwork had corroded and seized itself onto the iron shaft. Consequently he had to take down the entire shaft in one piece and wrap it very carefully for transport. Thankfully it made the journey to Kent without any damage and after a week of soaking the metalwork with penetrating oil we

managed to unscrew the bottom finial and slide all the glass pieces off the iron shaft.

When removed, these pieces revealed some surprises. Inside the receiver bowls (the bowls that sit under the round plates that hold the arms) were fabricated tinned metal bowls acting as spacers and these had rusted away on one side, suggesting the shaft had been left lying down in either a wet or damp atmosphere. The verdigris on the underside of the cast brass receiver plates also matched the areas of the metal bowls that had rusted away.

We also found there were another four replacement arms made much earlier than the two bright glass ones. These had different square brass pots that were not as well made as the originals and are slightly shorter in length. It is a lot of work to make these square brass pots: ordinarily ones from broken arms would be reused, thus suggesting that these arms had probably been lost, not broken. This might have happened when the chandelier was taken down and stored at some time in its life.

However, the most interesting find was a folded-up newspaper used as packing inside one of the receiver bowls. The newspaper was the *Weekly Register* from London, dated 11 September 1731. It is well recorded that the chandelier was given to Emmanuel College by Edward Hulse MD in 1732, tying in neatly with the date of the newspaper. [Larry Klein writes about this discovery in the next article – Editor.]

In the 1980s I was asked by English Heritage to manufacture a reproduction of the earliest style of English crystal chandelier for Chiswick House in west London. I based our design on the earliest known example to me at that time, the chandelier made for Thornham Hall in Norfolk and installed in 1732. This chandelier is now hanging in the Winterthur Museum in Delaware USA and it has 12 plain arms arranged in a single tier from a single receiver bowl. In later years I worked on another similar chandelier at Chatsworth House in Derbyshire. Once again it has the same cut stem pieces and ten plain arms, but these are arranged on two tiers from a single receiver bowl. Now, having seen and worked on the Emmanuel College chandelier, which is the grandest of the three, with

18 arms on two tiers and with two receiver bowls, I can confidently say that all of these chandeliers were by the same manufacturer, though unfortunately I am still to discover who this was!

Back to the restoration. We gave a sample arm and drip pan to our glass-blower on the Isle of Wight and he skilfully made us replicas in 24 per cent lead crystal. Back at our workshops we ground and polished both pieces into shape. The arms were put into tanks of water and mild detergent to soften the old plaster, and after several days, with some careful picking and wiggling, the mounts were removed from the arms. They were then re-set into their correct mounts with fresh dental plaster (similar to plaster of Paris), making sure the candle-holders ended up pointing vertical and as nearly level with each other as possible. All of the glassware was carefully washed and dried, the metalwork cleaned whilst retaining the original patina, and the chandelier was assembled and photographed. Pat Cooke returned to Emmanuel College on 9 October and re-installed the chandelier.

We have restored thousands of chandeliers over the years, but the Emma chandelier will be one of the most important in our history. I am proud that we were able to help preserve and care for this very special piece.

David Wilkinson

A Message in a Chandelier

William Bowman was an Emmanuel man, and in 1731 he became the centre of a little known public controversy. Born about 1703, he was admitted in 1723, taking his BA in 1728 and MA in 1731. By the time he graduated he had already, in 1727, published a volume of verse, which might suggest that he aimed to become a genteel man of letters. However, as the son of a clergyman he was destined for a clerical vocation, taking orders as a deacon in 1728 and a priest in 1729. His career took off quickly: by the end of 1730, he was the vicar of two Yorkshire parishes, Dewsbury and Aldborough. (He

was allowed to hold both as an entitlement of his position as chaplain to Charles Hope, Earl of Hopetoun.) A sign of the esteem in which this young man was held was the invitation to preach at an episcopal visitation at Wakefield in June 1731[1].

However, in his sermon at Wakefield, Bowman expressed controversial views, leading to trouble with his ecclesiastical superiors for understandable reasons: he attacked clerics and the status of the church in a way that suggested his sympathy with the most radical contemporary freethinking. His sermon not only alarmed the authorities but also, and more to the point here, made him a minor celebrity, the subject of considerable abuse as well as of some support in the press. Throughout the summer and into the autumn of 1731, Bowman was mocked, though sometimes praised, in London newspapers, journals and pamphlets. One example is the 172 lines of satiric verse concerning Bowman in the *Weekly Register* for 11 September 1731. (One cannot help noting the salience of this date in much more recent history!) As it happens, this is the newssheet discovered when the great glass chandelier in Emmanuel College chapel was recently disassembled for restoration and cleaning: the paper had been wadded into the works of the chandelier and was serving to fill space between its component pieces. It appears to be coincidental, but it is also ironic, that a poetic response to Bowman's attack on the pretensions of the church has hovered over proceedings in the chapel of Bowman's own college for the last 287 years. The irony is heightened by the fact that Bowman's views were associated with radical anti-clerical Whiggism at a time when Emmanuel had turned Tory, an affiliation that involved a powerful allegiance to the Established Church.

The irony makes one wonder: was the insertion of this particular page of newsprint in the chandelier an accident, or was it deliberate, a kind of message in a bottle? It might be possible to

[1] The only modern historical scholarship on William Bowman is by Professor Stephen Taylor of Durham University: 'The Bowman affair: Latitudinarian theology, anti-clericalism and the limits of orthodoxy in early Hanoverian England', in Robert D Cornwall and William Gibson, eds, *Religion, Politics and Dissent, 1660–1832: Essays in Honour of James E Bradley*, Farnham: Ashgate 2010, pp. 35–50. Many details in this article are reliant on Taylor's scholarship. The background to the restoration of the chandelier is discussed in this issue of the *Emmanuel Magazine* by David Wilkinson

The WEEKLY REGISTER.

LONDON, SATURDAY, September 11, 1731. NUMB. LXXIV.

The Reasonableness of writing in Defence of the Government, against the ... and mischievous Clamours of the Craftsman *and his Party.*

THE *Craftsman* and his *Auxiliaries* have continually made it their Business, next to the arraigning and condemning the *Ministry*, to arraign and condemn all those who have made themselves the *Advocates* in his Cause; they have represented them as dull, mercenary, trifling, and inconsistent; they have call'd them the Friends of Oppression, the Flatterers of Vice, the Tools of Government, and the Enemies of their Country. They have taken infinite Pains to make them contemptible in the Eye of the Publick, and have done their utmost to stifle all the Evidence that was not in their Favour.——On the other Hand, they have made a Weekly Boast of their own Popularity, printed Letter upon Letter in their own Praise, and voted themselves *Patriots* with all the Assurance and Vanity of ...

These Methods have been ... themselves a favourable Hearing from their ... and throw an Odium on their Antagonists ... Prepossession in the Jury on their Side ... and prevent, if possible, all Attention to the ... their Artifice has succeeded, I'll ... Opportunity; at present, I shall only prove that, whatever the *Craftsman* may have advanc'd to the contrary, *'tis as reasonable to defend the Government as oppose it, and absolutely necessary for the Publick to examine both Sides before they determine on either.*——*Audi alteram Partem* is the Motto in almost every Town-Hall in *England*; and, if that Maxim is absolutely just and necessary in the most trifling Causes, who shall presume to declare Sentence on the Conduct of a Ministry, without knowing the whole of the Debate, or attending to what naturally rises in their Favour? Yet, such is the Absurdity of the misguided *Many*, such the Levity of their Hearts, their Proneness to vilify, their Eagerness to condemn, their Fondness of Change, and the Confusion that would follow it, that, impell'd by their Ignorance, they rush at once into the Secrets of State, compliment one another as profound *Politicians*, and censure in a Moment what Prudence and Wisdom would deliberate upon for Years, and tremble at last to condemn, for Fear of a Mistake.——But we'll examine this Affair more particularly, nor be guilty ourselves of what we complain of in others.——The *Craftsman* asserts that, by the natural ...

disturb it; we would be good Subjects to be Friends to the Common-Wealth, and would be greatly cautious how we troubled its Repose: We are justly afraid of licentious Opposition, and undistinguishing Invectives: Faction is like what is fabled of the Devil, easy to raise, but hard to lay; and we would not be instrumental to a Mischief we could not cure.——The present *State-Malady* is only *imaginary*, and the Remedy would be worse than the Disease, even if 'twas real; our *political Empiricks* would persuade us the *Constitution* is out of Order, that they may be fee'd for the Cure.——But we add that Misfortune to *Plague, Pestilence, and Famine* in our *Litany*, with *a good Lord deliver us from all.*——It must be remembred our Government is a Species between a Monarchy and Republick; if the *Craftsman* and his Party guard against the Incroachments of the first, we make it our Business to prevent the Confusion of the last; one Part of the *Constitution* has as much Need of an Advocate as the other: If we do our Endeavours to keep the Balance even, we do the Duty of *Englishmen* as well as they, and have as much Title to Popularity and Reputation.——To oppose the Designs of *Faction*, is as meritorious as to distress a *Tyrant*, and, where the Case is so plain on our Side, and so false on theirs, it does not require a Moment to determine who is the truest Friend to the Publick, or ought to be highest in its Favour.——Nothing but Tyranny admits of an Opposition; while the Laws are executed in their proper Channels, without Violence or Partiality, a good Subject can never complain, and a bad one is not to be regarded: the Charge of *Tyranny* can never justly be brought against any Part of the *present Administration*, and consequently 'tis *Faction* only that complains.——If *Faction* complains, 'tis unjustly: whatever is unjust is injurious to the *Constitution*, and whatever is injurious to the *Constitution* every particular Member is oblig'd to withstand to the utmost of his Power.——Now let the Publick consider whether we are the Tools of the State, or the Friends of the *Constitution*; whether 'tis not nobler to preserve the Peace of a Society, than to destroy it: whether 'tis not just to guard against the *Craft* and *Insolence* of *Faction*, and support one Part of the *Constitution* when 'tis invaded by another; whether 'tis not necessary to examine both Sides before we proceed to a Verdict, and whether the *good Subject* is not always to be preferr'd to the *Incendiary*.——I need not say any more on this Head, 'tis too obvious to be deny'd, and too just to be confuted.

Another Part of the heinous Charge against us is, that we are absolutely devoted, inlisted Slaves to a certain Great Man, and that we write and speak and think agreeably to his Instructions and Commands.——'Tis but Right to do the Great Man and ourselves Justice even in this Point too; 'tis most notorious ...

tion, and, my ... suppose me in the mean Time: By that I'll co... *knows* that I understand what is brave or gene... be, and profess it as much; that I hold *Liberty* ... and am as greatly concern'd for the *Constitution*; ... understand the Manners of a Gentleman, and the Character of a Writer as perfectly; that I hate Slavishness and Dependency as much, and am interested as sincerely for the Glory of the *British Name*; that I scorn an infamous Attachment any where, and make my Judgment the Rule of my Conduct; that I am determin'd by *Things*, and not by *Persons*; and that *Justice* only fix'd me in Favour of the *Administration* I have attempted to defend.

To the AUTHOR *of the* WEEKLY REGISTER.

A finishing Stroke to the Annotations on Mr. BOWMAN'S Sermon, *in a Letter to* Mother BAVIUS *(publish'd last Week in the* Grub-street Journal) *Paraphras'd in Rhyme.*

See closely ORTHODOXO *lay a Claim to Wit,*
From finish'd Prose to BOWMAN'S *Disgrace writ.*
Grub. Journal, *Sept.* 2. Page 3.

HE... ll the holy Tricks
... ads of Catholics,
Confes... t up
To ... ck-a-heap ——
Conf... Murkhead? what
For ... he mean by *that?*
That should b'apply'd to People who
We're speaking *of*, not speaking *to*.
Lo here! how, ev'n in Language common,
Extreamly ignorant is BOWMAN!
Yet *greater* far his Ign'rance seems
(There being *great* and *small* Extreams)
In all he writes on —— for the Sot
Cou'd never understand *what's what*.
But by his Gaping we may guess
His Meaning, which no Doubt is this:
" That we condemn the popish Cheat,]
" And yet affect a Power as great."
When 'tis all Men's [but his] Opinion,
That *Church-men* court not Dominion;
But daily imitate our SAVIOUR
...

The copy of The Weekly Register, *dated 11 September 1731, found in the chandelier in the Chapel*

answer this question if we knew who made the chandelier; but we don't, which itself is striking, given its remarkable scale and beauty.

Glass chandeliers had only begun to be developed a few decades before Dr Edward Hulse donated this one to Emmanuel in 1732. The word 'chandelier' had appeared for the first time in English in an advertisement of 1714. Very few earlier examples of glass chandeliers survive, especially of the quality of Emmanuel's. It was only the wealthiest of aristocratic households or institutions that would have needed such a light source and been able to pay for one around 1730.

While the glass arms and stem pieces would have been produced in one of Britain's proliferating glass houses, the chandelier was probably constructed by a furniture-maker or glass-retailer, almost certainly in London. It would not have been at all strange for newspapers to be available in an artisanal workshop or a glass 'warehouse' for two reasons. First, out-of-date newspapers were sold in bulk to tradesmen of all sorts: newsprint was convenient for wrapping and other purposes. In another chandelier of the period, a similarly hidden bit of paper wadding revealed the identity of the maker. Second, London tradesmen and artisans were usually literate. This would have been especially true in the glass and furniture trades, which produced semi-luxury goods and paid their workers well. Moreover, this artisanal and trading population was keen to read newspapers which, then as now, offered a diverse range of material, suitable to many interests and tastes: news, information, opinion, entertainment and especially controversy.

The *Weekly Register*, which began publication in 1730 and disappeared at the end of 1735, was a typical London newspaper of the 1730s, one of several appearing weekly. (There were also six dailies and four appearing two or three times a week.) It was a folio sheet of paper folded in half and thus providing four sides of print. The contents were standardised: first, an essay on a moral, cultural, religious, political or other topic; then a series of submissions 'to the editor', seemingly by readers though often written by the editor or a house writer; and, after these, a summary of the week's news, tabular information about ships, prices and other commercial matters, and, finally, advertisements.

Publishing newspapers was a commercial enterprise and highly competitive. The business throve on controversy. Of course, the policies and practices of the government of the day were the subject of frequent examination and of critique or praise. The leading opposition journal in 1731 was the *Craftsman*, founded in 1726 with the chief purpose of attacking the Whig government of Sir Robert Walpole. However, newspapers livened their content with attacks not just on the government but also on each other. Notably, in 1730 the *Grub Street Journal* was founded: although it too was inclined to condemn the government, its main aim was to mimic, mock and undermine all the other major publications on the market.

In the number of 11 September 1731, the *Weekly Register* took on both the *Craftsman* and the *Grub Street Journal*. The *Craftsman* was not a newspaper, but rather a weekly essay-journal which, when it was not accusing the government of malfeasance and corruption, was trumpeting its own ideas of public welfare and patriotic duty. Its attacks were serious enough to prompt Walpole to spend a good deal of public money to found and fund several periodicals in support of his administration. The *Weekly Register* was not one of those publications. Rather, it was an independent commercial enterprise, albeit one inclined at times to praise the government. In fact, its opening essay on 11 September proposed 'The Reasonableness of writing in Defence of the Government, against the absurd and mischievous Clamours of the Craftsman and his Party'. Following this essay appeared the long poem about William Bowman, who had already for several weeks been an object of attention in the press and among the reading public.

Bowman had brought this attention on himself. His sermon might have remained a worrisome matter only to church officials, but he then took the step, within weeks of its original delivery, of having the sermon published under the title *The Traditions of the Clergy Destructive of Religion*: at least six editions appeared before the end of 1731 plus another published in Dublin.

What had Bowman said? In part he was simply taking an extreme stance about an issue that had been debated for decades

(indeed, centuries), namely, the nature of the church's authority. Bowman asserted that the authority of the church (and of its episcopal organisation) was entirely derived from the authority of the state: there was no trace, in his view, of the idea that the church had a divine origin. This view was offensive to most Anglican churchmen. However, this controversial position was much exacerbated by Bowman's choice of words. He accused the Church of England of 'priestcraft', a term that linked it with the history of spiritual tyranny, as it was perceived, from ancient Egyptian religion through to the contemporary Roman Catholic church. Bowman was hardly being prudent when he adapted the language of Isaiah to describe the Anglican clergy as 'Watchmen that are blind, greedy Dogs that can never have enough, Shepherds that cannot understand, that all look to their own Way, every one for his Gain from his Quarter'.

Before the end of July, the *Grub Street Journal* had picked up on the sermon, using a short epigrammatic poem to associate Bowman with Matthew Tindal, a notorious deist, and Thomas Woolston, who had been charged and convicted of blasphemy for denying that miracles had ever literally occurred. The *Grub Street Journal* went on, in two separate issues (19 August and 2 September), to dissect the sermon: this demolition has been attributed to Joseph Trapp, who had already served as Oxford's first professor of poetry and was by 1731 more well known as a High Church polemicist. Trapp worked his way through the published version of Bowman's sermon, accusing him of ignorance and cant, and of echoing, when he was not plagiarising, earlier radical deist writings. What could endanger the church more than a cleric's anticlericalism? Among Trapp's interesting points is that, given the decline in the effectiveness of church courts, the only way that the enemies of the church could be countered was 'by way of pen and ink', by resorting to controversial writing in the public sphere.

The *Grub Street Journal* had already developed a mutually beneficial antagonism with the *Weekly Register*, which responded by paraphrasing the two *Grub Street Journal* essays in mocking rhyme. The gist of the rhymes was that, whatever infidelity

Bowman demonstrated in his sermon, the *Grub Street Journal* was over-reacting with its own ignorance and cant. The verse paraphrase in the 11 September *Weekly Miscellany* concluded by ventriloquising the author of the *Grub Street Journal* pieces:

> And now I'll ask ye – Speak your Conscience!
> Have I not heap'd a Load of Nonsense,
> Damn'd Lyes, and Impudence Uncommon,
> Upon this Infidel WILL BOWMAN?

The uproar about Bowman continued to be heard in both of these periodicals and others in the latter part of 1731. Moreover, both the essays in the *Grub Street Journal* and the verse paraphrases in the *Weekly Register* were revised and turned into separately published pamphlets. Indeed, at least ten more publications about Bowman, some in multiple editions, appeared in the wake of the sermon's publication. Some earnestly attacked him: for example, William Bowyer's *The Traditions of the Clergy Not Destructive of Religion*, followed quickly by the anonymous *The Traditions of the Clergy No Way Destructive of Religion*. Some publications came to Bowman's defence, as did *A Full Justification of the Doctrines in Mr Bowman's Visitation Sermon*. Others continued to mock the controversy through ridiculous verse, including one rhymed version of the original visitation sermon. However, interest in Bowman among the publishers and the public diminished after a few months. There is little mention of him in 1732 or beyond, though Henry Fielding's 1732 play, *The Old Debauchees*, may have incorporated reference to the controversy.

For Bowman, of course, it was not the end of the story. The church still had legal instruments available with which to attempt to punish a wayward cleric, but the authorities chose not to use them. If nothing else, they worried that any litigation might inspire further public controversy in which the church was characterised as a persecutor of conscience. However, the church was not without resources. In particular, there was a question about whether Bowman should be allowed to continue to enjoy both his livings. It was made clear to him that he would have to pay a price in order to hold them both: recantation. Bowman held out for

several years, but in 1735 he duly recanted. By 1741, he was publishing *The Imposture of Methodism Displayed*, an attack on the early followers of George Whitefield and John Wesley, which would have been very acceptable to his superiors in the church.

It was probably a fortuity that the newsprint used to help secure a joint in Emmanuel's glass chandelier actually discussed an Emmanuel man. In all the press coverage, Bowman's Cambridge college was not mentioned, though we cannot assume that his Emmanuel connection was unknown. However, it is interesting to contemplate the possibility that a playfully subversive glass-retailer or furniture-maker was having a little private joke in 1731 when he used this particular page of the *Weekly Register* in the chandelier, a joke that came to light 287 years later.

Lawrence Klein, *Emeritus Fellow*

'A World of Geographers' at Emmanuel in 1928

What is an appropriate collective noun for a group of geographers? To compare, for example, with 'a nucleus of physicists', 'a galaxy of astronomers', 'a horde of archaeologists' or 'a sequitur of logicians'. Perhaps 'an atlas' or 'a globe' or simply 'a world of geographers'? The largest gathering of the 'world of geographers' ever held in Cambridge was that of the International Geographical Congress (IGC) of 1928, attended by more than 400 scholars from 48 countries, and one of the social events of the congress was held in Emmanuel's gardens.

After a few days of preliminary ceremonies in London at the Royal Geographical Society's House in Kensington, on Tuesday 17 July 1928, participants of the IGC proceeded to Cambridge by a special train. The following four days saw parallel sessions of more than 100 papers presented in six sections (mathematical, physical, biological, human, historical and regional). In addition, there were

field excursions to Blakeney Point, to Ely and the Fenland, to Breckland, and to the chalk area south of Cambridge. The congress was formally opened at noon on Wednesday 18 July in the Senate House, by the Vice-Chancellor, the Revd G A Weekes, Master of Sidney Sussex College. He observed that the study of geography had made rapid progress in Britain during the early years of the twentieth century. But, presumably having read the programme of the congress, what struck him most about 'modern geographical study was the number of sciences it laid under construction', so that he confessed to the assembled participants that he was left wondering if indeed 'there are more things in heaven and earth than are dreamt of in your philosophy'. Among the social events held during the congress were a tea-party at 4.00pm on Wednesday 18 July given by the Principal of Newnham College, followed at 9.00pm by a reception at Emmanuel, where – according to the authors of the official report of the congress – 'in the illuminated courts and gardens the Master, Dr Peter Giles, received the guests, whose diversity of academical robes added to the picturesqueness of the scene'.

Why Emmanuel was chosen as the location for this festive event is a mystery. Peter Giles was a classicist, a philologist then in his seventeenth year as Master. He was renowned for his generous hospitality to 'young and old members of the college alike' and to 'many others as well'. Including potentially more than 400 geographers from around the world? There is no record of this garden party in the *College Magazine* for 1927–28, nor in the Giles papers in the college archives. Nor, it seems, in other college records, such as the Steward's accounts or the minutes of the Governing Body. In 1928, the college's 16 Fellows did not include one in geography (the college was not to acquire a Fellow in geography until my own election 42 years later). Emmanuel then had few undergraduates reading geography. For Part I of the geographical tripos in 1928 there were four: H B Whitworh was placed in Class II, while D W Matlock, L F Rice and A J L Sadler were placed in Class III. For Part II, there were two candidates from Emmanuel: G W Briggs, who was placed in Class II, and D Carey, who was declared by the

examiners to have attained the standard for the Ordinary BA degree. During that year, Whitworth was vice-president of the college's Historical Society (of which a Fellow in history, Edward Welbourne, was president). In the Lent term, Whitworth had presented a paper on Marco Polo to the Pococuranti, a discussion society self-limited to 12 members. Mullock was president of the XII Club, a play-reading group also self-limited to 12 members. Their readings that year included Oscar Wilde's *The Importance of Being Earnest* and Bernard Shaw's *The Doctor's Dilemma*. Mullock was also captain of the Rugby Club. Sadler was captain of the Fives Club and a leading bowler for the first eleven cricket team.

Perhaps this congress was most remarkable for the intrepid participation of Henry Clifford Darby of St Catharine's College, who had been placed in the First Class in Part II of the geographical tripos merely a few weeks before the congress opened. Darby was only 19 years old: he was not to become a research student until the October following the congress and he was then to make history by being awarded in 1931 the first PhD dissertation in geography in Cambridge, its subject being 'The role of the Fenland in English history'. Darby presented not one but two papers at the congress and met a host of distinguished international geographers, notably a group from France that included authors, or authors-to-be, of classic regional monographs (among them Pierre Deffontaines, Albert Demangeon and Emmanuel de Martonne). From this star-studded congress, Darby went on to become a highly productive scholar and internationally renowned promoter of historical geography as a sub-discipline.

The IGC in Cambridge in 1928 was an astonishing event. The young department of geography then had only five university officers. A board of geographical studies had only been established by the university in 1903 and the regulations for the geographical tripos had only been approved as recently as 1919. The first examination for Part II of the tripos had been held in 1921. For the department to be hosting such a significant international gathering, such a 'world of geographers', so early in its history – when it still did not have its own building but occupied space in various

corners of the Downing Site – was truly remarkable. How splendid that Emmanuel had an honourable and an hospitable, if only walk-on, part in the history of the International Geographical Congresses, the first of which was held in Antwerp in 1871 while the next one, the thirty-fourth, will be held in Istanbul in 2020.

Alan Baker, *Fellow*

VIRTUTE NON VI: *THE ORIGIN AND MEANING OF THE FOUNDER'S MOTTO*

The inside front page of the *Emmanuel Review* 2016, entitled *View from the Lodge* and honouring Life Fellow John Reddaway on his ninetieth birthday, portrays him accompanied by the Master in the Fellows' Parlour. Over the fireplace in the background is a coat of arms under which it is just possible to discern a Latin motto whose last two words are *non vi*. By a curious coincidence, on the facing page, the Master is shown in a different role in front of the boathouse, mounted above which is the College crest underscored by the Boat Club motto, *Fit via vi*. As discussed in last year's *Magazine*[1], the Boat Club's motto is derived from the Roman poet Virgil's epic poem the *Aeneid*, and translates into English as 'The way is made by force'[2]. By contrast, the motto in the Parlour ends with the same Latin word *vi* ('by force') but is preceded by *non* ('not'), thereby not advocating, but deprecating, the use of force. Unfortunately, the first word of the motto is partly concealed, leaving the interested reader with the tantalising question as to what this word might be and the significance of the full motto.

On seeing the incomplete motto, I was reminded of a recent visit to the church of St Bartholomew the Great, in west Smithfield

[1] R Jones, '*Fit via vi*: the origin of the Boat Club motto', *Emmanuel College Magazine* **99** (2016–17)

[2] As translated by Gavin Douglas, 1553

in the City of London, which is the final resting place of the college's founder, Sir Walter Mildmay (1520–89)[3]. There, in gold letters over the top of his modestly monumental tomb, are the three Latin words of his motto, *Virtute non vi*:

The Founder's motto Virtute non vi *over the fireplace in the Parlour*

This is the motto that is displayed under the arms[4] in the Parlour. In the Old Library, the motto is also included in a full-length portrait, around the frame of which a Latin inscription identifies it as a 'Portrait of the most noble gentleman Walter Mildmay, Knight Bachelor[5], Chancellor of the Royal Exchequer, member of Her Royal Majesty's Council, and most generous Founder of this Emmanuel College in the year 1584'. A further Latin inscription within the frame states that the portrait was painted in 1588, when Mildmay was 66 years old, and concludes with the words *Virtute non vi*. The same motto is also contained in the Founder's portrait of 1574 hanging over high table in the hall; carved in a stone tablet mounted over the stairs in the library; and

[3] According to *A Complete Guide to the British Capital*, John Wallis, London (1814), p. 264, Mildmay's London residence was in a part of the former Priory of St Bartholomew

[4] The arms in the Parlour differ in the arrangement of the quarterings from those arms over Sir Walter Mildmay's tomb. As notified by Amanda Goode, College Archivist, they were the gift of T S Hele, Master from 1935 to 1951. For simplicity, in this article only the motto is considered

[5] At the age of 23, Mildmay was one of more than 50 knights bachelor created by King Edward VI on 22 February 1547 immediately after his coronation at the age of nine. They were known as the Knights of the Carpet, possibly through forming some kind of guard of honour (The Imperial Society of Knights Bachelor, private communication, 21.03.2018)

written with Mildmay's own hand in several books that he donated to the college[6].

What does the founder's motto signify and what is its origin? Translated into English, the Latin words *Virtute non vi* mean 'By virtue, not by force'[7], but this information only partly answers those questions. Furthermore, the words cannot be neatly traced back to a classical Latin or biblical source in the way that the Boat Club's motto *Fit via vi* derives directly from Virgil's *Aeneid*. However, the founder was a highly educated and prudent man who was intimately familiar with such sources, so it may be assumed that he chose his Latin motto advisedly to convey a message that was important to him. What was that message?

In *Renaissance Virtues*[8], Professor Quentin Skinner traces the origins of the ideas that influenced the thought of Renaissance leaders. Following a discussion of the work of Giovanni Pontano (1429–1523), he states that 'The goal of princely glory must be reached *virtute non vi*'[9]. This assertion could be construed as ascribing the words *virtute non vi* to Pontano himself, but in a private communication Professor Skinner has indicated that this was not intended. On the other hand, in the same work, Skinner points[10] to an influential passage from *De Officiis* by the Roman politician and lawyer Cicero, which in translation runs 'There are two ways of settling a dispute: first, by discussion, second, by physical force; and since the former is characteristic of man, the latter of the brute, we must resort to force only in case we may not avail ourselves of discussion'.[11] Could this classical source be the origin of Mildmay's motto?

[6] The College Librarian, Dr H Carron, has confirmed that there are four books in the library bearing Mildmay's signature, three of them accompanied by the year 1555, one undated

[7] Both *virtute* and *vi* are in the ablative case, hence requiring in the translation the insertion of 'by'

[8] *Visions of Politics, Volume II, Renaissance Virtues,* Cambridge: CUP (2012)

[9] Skinner, op. cit. p. 137

[10] Skinner, op. cit. p. 144, 'What of Cicero's contention that a good leader will be distinguished above all by his willingness to avoid brute force?'

[11] Marcus Tullius Cicero, 106–43 BCE, *De Officiis, Liber Primus, 134*, Nam cum sint duo genera decertandi, unum per disceptationem, alterum per vim, cumque illud proprium sit hominis, hoc belvarum, confugiendum est ad posterius, si uti non licet superiore

In his article *Virtute non vi* in Vol. LXXVI of the *Magazine*, Dr Frank Stubbings describes a stone tablet which the Founder caused to be set up over a fireplace at his country house, Apethorpe Hall. Carved in the tablet below the words *Virtute non Vi* is a Latin verse whose fourth line runs *Vis pecudes, virtus nos*[12] *facit esse viros*, which Stubbings translates as 'Force makes us beasts, but virtue makes us men'. The similarity between the sentiment of this line and the passage from Cicero referenced by Skinner is too close to be overlooked, since a paraphrase of Cicero's line would be 'Force characterises the brute, discussion the man'. Mildmay's three-word motto, *Virtute non vi*, with the sequence reversed, then distils the essence of the same sentiment even further into 'Not by force, but by virtue'.

How plausible is the suggestion that the founder could have paraphrased his motto from Cicero's sentence[13]? As exemplified by books he donated to the college, Mildmay habitually signed their flyleaf and appended his motto, a custom which was the forerunner of later bookplates. The earliest bookplate known to the author is that of Sir Nicholas Bacon (1510–79), Lord Keeper of the Great Seal under Queen Elizabeth I, in books which he donated to Cambridge University Library in 1574[14]. The bookplate includes Bacon's Latin motto *Mediocria firma*, which can be translated as 'Moderation endures' and is widely held to be derived from the chorus of the play *Oedipus* by the Roman writer Seneca[15]. However, neither in the chorus nor anywhere else in that work does the specific two-word combination *mediocria firma* occur. This is similar to the situation with Mildmay's motto, which also cannot be traced back directly, word-for-word, to a classical source. In fact, the words *mediocria firma* distil the essence of a sentence that is indeed spoken by the chorus in Seneca's *Oedipus* – *Quidquid excessit modum, pendet*

[12] In Stubbings op. cit. *nos* is erroneously transposed from the stone tablet as *non*

[13] *De Officiis* was written by Cicero in the form of a letter to his son. Mildmay also wrote a *Memorial for a Son* with admonitions of worldly prudence and religious earnestness. Could this be further evidence of Cicero's influence on the founder? See E B Shuckburgh, *Emmanuel College*, London: F E Robinson & Co. (1904), p. viii

[14] Confirmed by Cambridge University Library, Rare Books Department, in a private communication, 29.03.2018

[15] See, for example, Patrick Collinson, *Godly People*, London: Hambledon Press (1983), p. 139

instabili loco[16] – which can be translated as 'To exceed the mean is to teeter precarious'[17], thereby summarising Bacon's cautious political philosophy[18].

Bacon was highly educated and well versed in Latin, so could have been able to distil the essence of Seneca's sentence into his two-word motto himself. The same was probably true of Mildmay with regard to Cicero. Or could there have been a common intermediary who possessed and applied this special skill? In his aforementioned article, Stubbings suggests such a person in the figure of Walter Haddon (1515–72). Haddon was also closely associated with Cambridge and especially noted for his mastery of Latin, having been educated at Eton College at a time when boys were required to speak only Latin and punished for failure to do so[19]. Stubbings conclusively identifies Haddon as the author of the verse carved in the tablet under Mildmay's motto at Apethorpe, for he discovered that the same lines appear, under the title *Virtute non Vi*, in an edition of Haddon's poems published in 1567.

However, a question-mark over the identification of William Haddon also as the original creator of the founder's motto arises with regard to dates. The earliest known use by Mildmay of his motto, and indeed the earliest identified occurrence of the motto *Virtute non vi* at all, accompanies his signature and the year 1553 in a copy of Froissart's *Chronicles* which originally belonged to Henry FitzRoy, 1st Duke of Richmond, the illegitimate son of King Henry VIII. As Stubbings observes, the stone tablet at Apethorpe is dated 1562. So did Haddon pen his verse some time before that date, based on Mildmay's pre-existing motto? Or was Haddon's verse entitled *Virtute non vi* written, and known to Mildmay, at least nine years before the stone tablet was set up? Despite extensive research it has not been possible to answer this question.

[16] Tom Van Malssen, *The Political Philosophy of Francis Bacon*, Albany: State University of New York Press (2015), p. 248

[17] Numerous other translations indicate the difficulty of translating this sentence and motto satisfactorily

[18] Van Malssen, op. cit.

[19] C Lees (ed.), *The Poetry of Walter Haddon*, The Hague and Paris, Mouton Publishers (1967), p. 14

What did the founder's motto mean to himself and others? 'By virtue, not by force' alone leave open the question as to what should be achieved in this manner. Sir Walter Mildmay lived through a turbulent period of English history, closely serving three monarchs as financial administrator, parliamentarian and loyal adviser. According to Stanford E Lehmberg,

> Historians have long recognised Sir Walter Mildmay as one of the three or four great figures in Tudor financial administration. Rising by his diligence and ability from a clerkship in the Court of Augmentations, he became Chancellor of the Exchequer at the beginning of Elizabeth's reign and continued to direct all financial operations for 30 years. Mildmay now appears as a towering parliamentary figure, leading the House of Commons from 1576 to 1589; as a skilled negotiator, involved particularly in attempts to reach an accommodation between Elizabeth and Mary Queen of Scots; a shrewd analyst of foreign affairs, especially relations with Scotland and the Netherlands; and as a dutiful member of the Privy Council. He was deeply concerned for education and religion, as his work in the Exchequer and Parliament, together with his foundation of Emmanuel College, Cambridge, testifies.[20]

Both within Britain and abroad there were far-reaching conflicts, with violence and war a constant threat or reality. Confronted with this environment, Mildmay may have been mindful of Cicero's observation that 'There are two ways of settling a dispute' and, with his motto 'By virtue, not by force', summarised his philosophy that, whenever possible, settlement should be achieved by the former rather than the latter. The historian Norman Jones goes so far as to characterise the form of government prevailing during the latter part of Mildmay's service under Queen Elizabeth I as 'governing by virtue'[21]. From a more modern perspective, in a recent interview, a former British Foreign Secretary, fully in keeping with Cicero's sentiment, defines diplomacy as being 'about resolving international disputes without resorting to war'[22].

[20] Stanford E Lehmberg, *Sir Walter Mildmay and Tudor Government*, Austin: University of Texas Press (1964)

[21] Norman Jones, *Governing by Virtue: Lord Burghley and the Management of Elizabethan England*, Oxford: OUP (2015)

[22] 'Jack Straw, British Foreign Secretary 2001–2006', in 'Six former foreign secretaries on Brexit, Britain … and Boris', *The Guardian*, 4 March 2018

By the time he founded the college in 1584, Mildmay was a rich and influential man who could have immortalised himself by giving it his own name as well as his personal arms and motto. He decided otherwise. Although Emmanuel's blue lion echoes the three blue lions contained in one of the Mildmay quarterings, for the college's name he reverted to a biblical source and the single Hebrew word *Emmanuel*, 'which being interpreted is God with us'[23]. By having it issue from the lion's mouth, he[24] also cleverly incorporated that word inseparably into the college arms as both name and motto, the only Cambridge college where this is the case. Should a memorial to the founder be sought within the college nonetheless, one is reminded of the epitaph on the memorial in St Paul's Cathedral to the architect of the chapel, Sir Christopher Wren: *Circumspice* – just 'look around'. For his own epitaph, 'short and sufficient of a most worthy knight'[25] and true to his profoundly puritan faith[26], Mildmay's monument bears the lugubrious Latin words *Mors mihi lucrum* ('Death is my gain'), an allusion to Philippians 1:21[27]. And referring to his rank of Knight Bachelor, he is modestly described as *miles* ('foot soldier') rather than *eques* ('equestrian'), as in the Latin text surrounding his portrait in the Old Library.

Returning to the Fellows' Parlour and the Founder's motto over the fireplace[28], how can it be explained to a visitor during the

[23] Matthew 1:23, KJV, 'Behold, a virgin shall be with child, and shall bring forth a son, and they shall call his name Emmanuel, which being interpreted is, God with us'

[24] Since the college arms were granted in 1588, only four years after its foundation, it is presumed that they were specified by the founder himself. Enquiries at the College Archives and the College of Arms have not revealed any evidence to either verify or refute this supposition

[25] Thomas Hearne, *A Collection of Curious Discourses Written by Eminent Antiquaries: Volume I*, London: Benjamin White (1773), p. 345

[26] For a description of Mildmay's character by his daughter-in-law, see Linda Pollock, *With Faith and Physic: The Life of a Tudor Gentlewoman: Lady Grace Mildmay 1552–1620*, London: Collins & Brown (1993), Chapter 1, 'Family affairs: marital life'

[27] Mihi enim vivere Christus est et mori lucrum (Latin vulgate); For to me, to live is Christ and to die is gain (KJV)

[28] The donor of the arms and motto, T E Hele, had served in the First World War as a Captain in the Royal Army Medical Corps and was Master during the Second World War. Was his donation perhaps at least partly an expression of hope that his successors would be spared such experiences?

course of a genial postprandial conversation of the type envisaged by Stubbings as occurring by the fireside at Apethorpe? Long before 'governing by virtue'[29] was experienced by Mildmay under Queen Elizabeth I, and even before the Roman authors cited here, the need for virtue among leaders was propounded by none other than the Chinese philosopher Confucius (551–479 BCE). An essentially Confucian interpretation of *Virtute non vi* is encapsulated in the words of his follower Mencius[30], 'When one subdues men by force, they do not submit to him in heart; they submit because their strength is not adequate to resist. When one subdues men by virtue, in their heart's core they are pleased, and submit sincerely'. Or, as Mildmay's taskmistress once declared, 'Though I be a woman, I will never be by violence constrained to do anything'[31].

Finally, what about the curious coexistence within the college of the mutually contradictory founder's motto, *Virtute non vi*, and Boat Club motto, *Fit via vi*[32,33]? An explanation for the adoption of the latter can possibly be found in the changed role of Britain between the reigns of Queen Elizabeth I and Queen Victoria and the development of the British Empire. As Lord Rosebery put it in a letter to *The Times* in 1900, 'An empire such as ours requires as its first condition an Imperial Race – a race vigorous and industrious and intrepid. Health of mind and body exalt a nation in the competition of the universe. The survival of the fittest is an absolute truth in the conditions of the modern world'[34]. Strong words, which echo the admonition of the Roman poet Juvenal to 'pray for a healthy

[29] N. Jones, op.cit.

[30] Year of birth uncertain, active in the third century BCE

[31] Queen Elizabeth I's response to a parliamentary delegation on her marriage, 1566

[32] As noted by R Jones op. cit., the Boat Club motto *Fit via vi* was only introduced into the college in the nineteenth century. Most recent research by the College Archivist, Amanda Goode, has established a date no later than 1844

[33] Referring to R. Jones op. cit., footnote 7, and the assumption that the college shield with motto *Fit via vi* was mounted on the boathouse before its opening in 1897, J G Taylor (1951) has informed the college that up to the early 1950s the Emmanuel boathouse remained without shield, the only one to do so. It was through the intervention of his father, S E Taylor (1921), brother Bill and himself that the present shield and motto were constructed and mounted over the boathouse. The woodcarving was undertaken by J G Taylor's grandfather, W E Taylor

[34] Susan Kingsley, 'Archibald Primrose, 5th Earl of Rosebery (1847–1929), Prime Minister 1894–1895', *A New History of Britain Since 1688*, Oxford: OUP (2017), p. 298

mind in a healthy body'. But if precedence must be set between the two mottoes, in the final line of the same poem[35] Juvenal unequivocally concludes that 'the only road to a life of peace is virtue'[36]; to which may be added the Founder's emphasis, 'virtue, not force' – *virtute, non vi*.

Robert Jones (1964)

An Interview with my old Director of Studies, Don Cupitt

I'm with Don in his study on Park Terrace overlooking Parker's Piece. Don doesn't get out so much these days and his wife Susan has driven us here through the back gate on Park Street and along the side of the Paddock; Don's joy at being in Emmanuel's lovely spring gardens is obvious.

Don and Emmanuel

'I've loved it here. It's been a jolly good place. I came to Emmanuel at a time when the college was rising rapidly in status, until, by the '80s, it was becoming one of the leading colleges in the university. It's been very friendly to me, very kind, through my troubles. There were periods when I must have been a bit of a bore to have around, been so obviously in mental turmoil. But I've survived, and here I am at 84, still in college rooms, which are a perk to have, and I still love to be able to come in here.'

Don is one of Emmanuel's greats. A philosopher and theologian, he became famous for his radical thinking in the 1970s when he published books with provocative titles like *Crisis of Moral Authority: The Dethronement of Christianity* (1972), *The Myth of God*

[35] Juvenal, Satire X

[36] Semita certe tranquillae per virtutem patet unica vitae

Incarnate (1977, co-authored) and *Taking Leave of God* (1984). He has been annoying the church authorities ever since, though he was a priest in the Church of England and Dean of the college.

When I was an undergraduate at Emmanuel in 1982–85 Don was famous because of his BBC TV series and accompanying book *The Sea of Faith* (1984). It's still a great introduction to his thought, and to the wider history of religious change in which that thought must be situated. Don's fame grew in unexpected places; in the last couple of decades he has become very popular in China. But 'the trouble with living too long is that you outlive your own reputation', he says morosely. 'Thank goodness most of us don't have reputations to worry about', says Susan.

Don was my Director of Studies, and he's always been an inspiration. The older I get, the more I realise what I owe him. Many of the themes I've pursued in my own career as a sociologist of religion – the decline of the churches and the rise of alternative spirituality and 'no religion' – go back to him. Today I've come to interview him, and he's happy to sit and talk. He was always a great talker and lecturer: clear, incisive and authoritative. None of that has dimmed. I want Susan to tell her side of the story too, but she's proving elusive, downplaying her own contribution and trying to escape.

I tell Don about my very first supervision at Cambridge. The course was 'Anthropology of religion', and Don was my supervisor. Fresh out of a remote comprehensive school, I sat trembling in Don's study in Front Court as he handed down from the shelf Evans-Pritchard's book *Nuer Religion*: 'Here you are', he said: 'Write an essay about this and come back the same time next week'. With a hazy idea of what an essay was and no idea at all what question I was meant to be addressing, I left the room in a state of perplexity.

Don smiles. 'Evans-Pritchard was an old member of the college and a damn good anthropologist. The big interesting question about him is how could he interpret the Nuer (a tribe in South Sudan). How is it that this man can understand it, whereas Rodney Needham at Oxford and other modern anthropologists were saying we can't actually understand, their worldview is so different

from ours? The answer usually given, and given by Evans-Pritchard himself, was that Roman Catholics, to a high degree, are able to combine sophistication with primitivism, and that's what he did. He was a Roman Catholic, and therefore he could make sense of Nuer religion.' At this point I realise that I probably failed to give the right answer on that essay, 36 years too late.

I change the subject and ask Don how his intellectual career began. After ordination and a curacy in the Church of England, he was appointed to a lectureship in Cambridge. The first major statement of his thought was in the Stanton Lectures of 1967–68.

Don's thought

'There was a strong emphasis on an old Platonic theme, the difficulty of using human language to talk about another world or another order of being. How is it possible to speak about God at all when the only vocabulary we've got is something evolved by human beings for purely this-worldly purposes? I was, much of my life, occupied with questions of what is language and in what ways does it shape our world; that already appears in the first book.'

I ask about his 'solution' to this epistemological issue. 'When we say "God is father", we don't mean that he has a wife and so on. We're making an ethical recommendation: think as if a father were watching benevolently over your life. So, to say "God is father" is an ethical statement about the spirit in which you should live. This I sometimes call the regulative view: life-shaping uses of language. Religious language co-ordinates human beings, gets them all looking in the same way, to harmonise their lives. So, yes, I gradually came to see language in that way and got more and more agnostic about supernatural belief.'

Linda: 'Do you believe in extinction at death and then nothing?'

Don: 'Of course. Yes. I call it "un-get-behind-ability": *Unhintergehbarkeit*, "outsidelessness". Wittgenstein said there's nothing beyond culture, this human life world of ours made by language is outsideless with nothing beyond it, just … You can't get

behind the scenes – the scenes have no behind. That's a key idea in my own thinking. You've simply got to forget all the old ghosts like God.'

Not surprisingly, this so-called 'non-realist' approach to religion proved highly controversial. I ask him to remind me what the headline was that the *Cambridge Evening News* once ran about him.

'"God is Dead, says City Dean." What the reporter had said to me was, after I'd explained the non-realist view of God, "So, there's no old man in the sky", and I said "No", and she took that as the basis for writing her headline. I rang up because I knew it would mean trouble for me.'

'You didn't really mind, or did you …?'

'Well, I could see it meant trouble for me.'

'And did it?'

'Yes. John Robinson had trouble too, even though what John was saying was worth thinking about. But religious controversy is horribly violent and bitter. Religious ideas are burnt into our heads with such force that they'll only change with great mental upheaval and that's very painful.'

I asked whether Don was involved in the *Honest to God* controversy of the late '60s, and what he thinks of John Robinson's book now.

'It wasn't near enough to my interests, which were more strictly philosophical. But I did know John Robinson quite well. The book's dated rather badly, but you could see that it was a great opportunity to encourage public discussion. [Archbishop] Michael Ramsey made a very bad mistake. He should have said, "This is a great opportunity to have a discussion", and recommended parishes up and down the country to talk about it, because when you go to church ordinarily you'll get nothing of any intellectual interest or quality at all. Ordinary believers are never given an opportunity to try to find out what they themselves think.'

'And why didn't he?'

'He was frightened of the evangelicals, who thought that the church courts would always find for the most literal reading of the formularies of the Church of England. And Rowan [Williams] said

that to me once, when we were involved in the television discussion of the resurrection, before he became archbishop of Canterbury.'

'At that time, he himself said that he didn't think anyone should hold office in the Church of England as a priest unless he believed in the empty tomb, the literal walking again of a dead body, and I said, "But, surely, when people preach about the resurrection, year after year, they have to give it an ethical meaning because there's nothing else you can do with it because, otherwise, it doesn't bear upon our experience at all." Saint Paul always treats the resurrection purely as an ethical reality, a new life we ought to be living and can live with the help of the teaching of Christ. Put it that way round, it makes sense. So, literal supernaturalism, to my mind, is quite wrong.'

'And what did Rowan believe?'

'Well, he said you had to believe in the empty tomb, that the dead body got up and walked about again, and he must therefore hold that the body simply ascended into Heaven, as it says in the Thirty-Nine Articles of the Church of England, which do say that Jesus' human body rose up to Heaven where it sits on a throne.'

'When do you think people widely stopped believing in that picture of the universe?'

'In Cambridge in the 1680s and 1690s there was serious discussion of the problem created by the fact that there was no space for heaven and hell in Newton's cosmology. But there was serious talk of putting hell on the Sun, or heaven on the Sun. They didn't know what else to do! We still don't have anywhere, really. Because if you start saying the heavenly world is an entirely different dimension, totally discontinuous with this world, it can never be "before" or "after" this world: we've no common timescale. That's an argument you commonly get in my books against life after death. Once you have a Newtonian cosmology of continuous space and time, or modern physics' account of continuous space and time, life after death is out because there's nowhere for it to be, because you cannot have any before and after between this life and another life in a totally different universe.'

I ask Don what becomes of eternity in this way of thinking.

'I prefer transience. Just as I prefer a small English wild daffodil to either a cultivated daffodil or a plastic one, so I prefer the actual transience of life. I'd sooner, as I put it, go up and off like a rocket, burn out and fall to Earth unnoticed. I'm now sceptical about the self, have been for 30 years. I don't believe in the immortal soul. We are the impression we give by our words and deeds and our interaction with other people. We're made of words, in the same way that Hamlet is made of words. He is what he says in the play. So, we are radically transient. It's the Buddhist view of the self, and one of the reasons why I like Buddhist spirituality and have Buddhist friends.'

The future of religions and the future of the world

I ask: 'What do you think of the so-called world religions, do you think they will continue, will they disappear, will they get re-interpreted?'

'They're all badly out of date now, and incapable of regenerating themselves on the scale required. Steven Batchelor is doing his best in Buddhism and it's pretty good. I've tried to do what I can in Christianity. Spinoza did Judaism very well: all in one hit, he was a genius.'

I ask about Islam.

'Islam has a lot to give, yes. The trouble is, it's been so illiberal and narrow for the last two or three hundred years because the Turks failed to understand what was happening in Western Europe. They had their contacts with Europe only through Venice really, and they were not told about critical thinking and they didn't see how critical thinking could possibly be compatible with Islam. They didn't realise what difficulty they were getting into; but then, along came the railway and the steamships and the telegraph, and suddenly, the Ottoman-Turks, the Ottoman Empire was out of date and going to collapse. It collapsed completely because its sense of its own perfection and superiority was too strong. So the crucial thing, rather, is to understand what critical thinking does to every religion. There's still a lot of material there that one

may want to salvage, but it's got to be arranged into quite different patterns.'

'Would you still say that you are a Christian?'

'I'd still say that I am, emotionally and intellectually, strongly Christian and remain so, but I'd see things very differently from the standard church view. I like the present pope but he's, unfortunately, become a bit tired and unable to beat down the conservatives in the Vatican.'

'What will happen to the Catholic Church? What's your prognosis?'

'I wonder. I wonder. It'll linger on for a bit, but I suspect Rome will simply collapse. I think that our civilisation is running into crisis anyway: that's the point of my last book (*Ethics in the Last Days of Humanity*, 2016), expecting that everything will collapse in one or two generations from now, possibly three.'

'Why?'

'A large range of issues and the growing ungovernability of mankind, because the rise of critical thinking also breaks up society and has us questioning all social authority, so that failed states and societies which simply can't govern themselves coherently or agree with themselves are spreading all around the world. That's happening at the same time as dozens of things: rising sea levels are leading to flooding of coastal cities; climate change; global warming; desertification; general pollution of the environment by all sorts of things, like plastics; the destruction of half the wildlife, both on land and in sea, across the world, has already taken place, and the rest is going very fast: ie we are racing towards our own destruction at a faster pace than we can cope with. We can't turn the great big super-tanker around in time, so the book argues, and it says, to get through the bad times that are coming, we must cling onto our values. We must not abandon all of our values as soon as things get a little bit difficult.'

'But what values will protect us from all those problems?'

'Values of humanity, so that when refugees arrive, you let them in. Hospitality towards the homeless stranger and towards the refugee and the alien is engrained in all cultures all round the world and always has been. Nowadays, people have abandoned it

almost overnight: ie people's level of loyalty to their own values is desperately low. But if we abandon our own values, we will all die off. We'll never be able to build a better society.'

'What becomes of our science-based societies that have been so successful?'

'They will disintegrate. We've got to decide how much of our science to keep and in what way to use our science next time. I remember [the philosopher] Elizabeth Anscombe saying once that it just happened that it was mechanics and motion that were the first sciences to develop a modern history, and they were always interesting to governments who wanted to use them for military purposes. So, science became aligned to the military from the very beginning. You could describe the flight of a cannonball, that sort of thing. But suppose the first science to be developed had been biology, we might have a better world now, if Darwinism had been discovered much earlier on. But as it is, we've wiped out more than half of what there was in the sea and on the land, worldwide. We're really destroying the Earth astonishingly quickly.'

'You don't believe in evacuating Earth and going off to another planet?'

'No. That's absurd really. The cost is far too high. And in any case, to live on another planet would be awful, in such an unhospitable environment. Human beings are cultural, profoundly. I remember, in the Arctic I once wandered away from the shore where human beings live, into the hills, and became utterly horrified by the fact that nothing around me had been named. It was all complete wilderness.'

I comment that we are back to language and our worlds woven in and through language-games: the recurring theme of Don's thought. It situates him in the 'ordinary language' tradition of English philosophy, with J L Austin, Ludwig Wittgenstein and others. In mid-career Don wrote some wonderful books based on our new 'religious' language: *The New Religion of Life in Everyday Language* (1999), *The Meaning of It All in Everyday Speech* (2000) and *Kingdom Come in Everyday Speech* (2000). His ear for everyday discourse and his ability to interpret what it says about our emerging worldview is remarkable.

'Yes: I'm hoping we'll keep the major world languages and some materials, but not too much because, otherwise, people will merely try to re-create the old civilisation and that wouldn't be any good.'

Don and Susan: on needing a wife

Susan Cupitt

Linda Woodhead and Don Cupitt

At this point Susan, who has escaped briefly into town, returns. 'I'm still being grilled!' says Don.

I see my opportunity to get Susan's voice into the mix, because she's a remarkable person in her own right, as well as Don's steadfast companion and supporter. I can't think of Don without her.

Linda: 'What year did you get married, you two?'

Both: '1963.'

Linda: 'Where did you meet?'

Susan: 'We met through my brother because Don and my brother, Roger, were up at Catterick together doing their National Service.'

Linda: 'And when did your eyes first meet?'

Don: 'I remember Susan as a large, very blonde, rather plump 16-year-old, in Roger's shed at his home in Prestwood, Bucks. She watched us with admiration as we played table-tennis.'

Susan: 'Admiration!?'

Don: 'Well, I was a real male other than her brother.'

Susan: 'And I didn't come across many of those, that's quite true, because I was at boarding school at the time.'

Linda: 'Did you watch her with admiration as well? Doesn't sound like it.'

Don: 'Don't remember. I became conscious of girls a bit late anyway because I was so preoccupied. It was ideas that mainly preoccupied me, from the age of about 16 to about 29, when I suddenly realised I hadn't married.'

Susan: 'Had to do something about it, so … Where could you possibly find some bird?'

Don: 'I remember my supervisor, George Wood, saying to me, "Don't let them keep you so busy that you never get round to getting married". He was the beloved Dean of Downing College, a charming man, but he was very sorry that he'd just forgotten to get married.'

Linda: 'So how did Susan break through into your inner life?'

Don: 'I was very lonely at Westcott House in the vacations. The whole place emptied, and I was trying to get some sort of meals for myself out of an empty college.'

Susan: '"Where can I find some woman who will do this for me?!"'

Linda: 'So you tell the story from your point of view, Susan.'

Susan: 'Oh, well, Don was pretty dishy when he was young, and he was a friend of my brother's.'

Don: 'I was over six foot four. Susan is tall herself, so I was a catch for a tall woman because tall women don't find it so easy to get a good husband.'

Susan: 'And then he phoned up one evening and he said he'd like to take me out to dinner at the Dorchester, because of course he had very few skills to do the business of wooing women: he just didn't know how to go about it, and he thought dinner at the Dorchester was what you had to do.'

Don. 'We went back to your place for coffee afterwards.'

Susan: 'I remember. You proposed, without any warning at all.'

Linda: 'Just like that, the same evening?'

Susan: 'Well, he was desperate for a wife, you see, he was desperate.'

Don: 'Susan suddenly shut up and put her coffee down. For perhaps the first time ever, Susan felt the need to collect her thoughts.'

Linda: 'And what did she say?'

Susan: 'Well, it did come rather out of the blue. You expect a certain amount of, well, to put it crudely, foreplay; you expect a certain amount of going out and so on. But he was so insistent, I thought, golly, this man's going to go off and kill himself if I don't say yes, so I said yes, because men do go at you and … the only way of getting rid of them at the time is to say, "Okay, okay, okay", and then, the next day, when everybody has sobered down, then you can approach the matter again … And then, over a period of a few weeks, we got to know each other and then decided … okay, we'll go ahead with it.'

Linda. 'And so you did. And three children and a lifetime later … here you are. I remember going to see you, Don, when I was a postgrad and struggling over whether to pursue an academic career or have children, and asking you: "If you had to choose between your work and your family, which would you choose?" Unusually, you paused for a long while, and then and you said, "I can't answer that because I couldn't have one without the other."'

Susan: 'Oh, really? That's comforting.'

Don: 'Yes, well, it did become necessary, yes. And of course, the family became a refuge increasingly from the stresses and problems of work too. The family base and the on-the-whole supportive base of the college helped me to endure the storms I got from the outside world.'

The consequences of truth

Don's alluding to the hostility he faced, not only from the church, but also from academic theologians, even within his own faculty in Cambridge. I've always thought it quite remarkable that he's not more bitter about the way he was marginalised and not even made a professor. I ask Susan how it affected her.

Susan: 'I was busy with the children, and with work (Susan is a German translator and teacher, and in later life has made a reputation for herself as a potter). This was Don's work. It's only recently that I've learnt a lot of this. He didn't share it, which is one of the reasons why I think he found life so difficult, because he wasn't sharing it with anybody.'

Don: 'No, no, you wouldn't. You don't discuss the problem. Because of my own "solar ethics" (an ethic of generous outpouring of life, of energy), I could not publicly express indignation or whatever. I had to just endure it without being upset, and that's still my policy. Eventually, I did decide I should leave the communion of the church but remain a member of the church.'

Linda: 'What does that mean?'

Don: 'I think Christianity has to move on another stage in its traditional evolution. The old idea was that the church was a watchdog organisation, a disciplinary organisation, keeping the faithful organised, while they wait for the coming of the Kingdom on Earth. But the next stage is when Western people have a purely one-world conception of reality. The Kingdom becomes ethical, the Sermon on the Mount becomes liveable: you have a kind of different attitude to ethics.'

Linda: 'So Susan, you have listened all your life to Don's thought.'

Susan: 'Oh yes, even at breakfast!'

Linda: 'How important is it to you?'

Susan: 'Very important, because it seems to make very good sense, but I am not a church-goer. I decided, very early on, that I would enjoy my life on this beautiful planet and take what came, as you might say. So I've got no religious aspirations at all.'

I comment on how remarkable it is that Susan came to this position independently and before she had even met Don, and I hazard the thought that she might have been an inspiration behind his idea of solar ethics: the idea of religion as generous, self-giving outpouring.

She puts me right immediately. '"Generous?" No. I think, as I said, I take what comes.'

It strikes me again how very Christian still Don is, despite what his critics say, not least in his self-effacing, self-sacrificing ethic, and his deep commitment to speaking the truth whatever the cost. I realise that this has been an inspiration to me in my own career, this insistence that you have to stick closely to the truth as you see it, however much trouble it may bring.

I think of Don as rather like Mr Ramsey in Virginia Woolf's T*o the Lighthouse:* the lonely, heroic thinker, with his crowd of disciples cluttering up the house. And the image of Jesus turning towards Jerusalem, refusing to moderate his words even though it will lead to crucifixion, also comes to mind.

Earlier in our conversation Don had said to me:

'I remember saying, in the mid-'80s, "The better I do, the more trouble I'm in. I'm on rails for destruction." Because, the better my books got, the more clear it was that my career was ruined, and I had difficulty surviving in the faculty.'

I ask: 'What were the most painful aspects of it?'

Don: 'I think it was a feeling of being trapped, and I couldn't get out of it. You can't deny your own thinking. I remember when I finished writing *Taking Leave of God*, I knew it was a good book and it would get me into trouble, but still, I felt I had to publish it, couldn't not do so.'

No wonder Don is grateful to Emmanuel. It gave him stability for his writing, a base for teaching, and a refuge from controversy. And he, in turn, has dignified it with his emphatic presence and fierce quest for truth.

Linda Woodhead (1982), *Professor of Sociology of Religion at Lancaster University*

*THE IMPACT OF A KRATER**

It first struck me while an undergraduate.

I was in the last cohort of students to be taught in a place generally known as 'the Ark'. This was the Museum of Classical Archaeology, then located in Little St Mary's Lane. The Ark seemed at a distinct remove from the university, let alone the real world. Lectures were given amid the muscular society of plaster-cast athletes by professors who smoked aromatic tobacco and used their pipe-stems to point out anatomical details. I spent a term studying

* *The Sarpedon Krater: Life and Afterlife of a Greek Vase* is published by Head of Zeus.

Greek vases under the supervision of Martin Robertson, who had retired from a chair at Oxford to live in Parker Street. (I believe he secured special permission from the Bursar to use Emmanuel's paddock as a short cut into town.) Robertson knew as much about Greek vases as anyone alive at the time: when he talked of individual vase-painters, it was with the respect and affection reserved for old friends. A favourite of his was the Athenian who signed himself as Euphronios: a name that translates as something like 'Good Sense', or 'Cheerful Spirit'.

One source of the favouritism may have been that Robertson, while still a student, had fortuitously discovered near the Athenian Akropolis fragments of a cup decorated by this Euphronios. But there was a more powerful reason. Robertson believed in being

Figure. 1. Guided by Hermes, Sleep (Hypnos) and Death (Thanatos) lift the body of Sarpedon, for transport to his Lycian homeland. 'There his kinsmen and retainers will give him burial, with a barrow and a monument, the proper tribute to the dead.' (Iliad 16.675). Ht. 46cm (18in). Cerveteri, Museo Archeologico

Figure 2. Detail of same. Sarpedon's death at the hands of Patroclus will be avenged by Hector; the death of Patroclus must then be avenged by Achilles. So this is a cardinal moment in the Trojan epic

able to make absolute judgements about art. A vase by Euphronios had lately been claimed, by its American curator, as 'the finest Greek vase there is'. Opening a folio to find a picture of it, my supervisor was visibly moved. He had reached that age when nodding of the head can happen involuntarily. But now he was shaking with sheer joy. I followed his gaze. There was the large vessel, its ceramic form opening out like a bloom (Fig. 1). I recognised the shape: a 'calyx-krater', used at ancient drinking-parties for the mixing of wine with water. Across the vase stretched a body. It was a sight for which words such as 'awesome' ought properly to be applied: the grandiose corpse of the hero Sarpedon, being lifted from the battlefield at Troy by the personified figures of Sleep and Death (Fig. 2).

The story of Sarpedon as told in Homer's *Iliad* confirms what the image suggests: that this is a scene of virtual apotheosis. I am sure that Martin Robertson, who knew much about art beyond antiquity, could have drawn connections with Christian iconography. At the time, however, our attention was on particular aspects of the artist's style: fingernails, ankle-bones, eyelashes. Sometime later, I was able to make an enlarged reproduction of the scene and

pinned this to the noticeboard by my desk. My desk has since moved many times, but Sarpedon by Euphronios has always moved in tandem.

It would be several years before I saw the actual krater, around 2001, then displayed prominently at the New York Metropolitan Museum in a case created by Tiffany's. Meanwhile, I discovered the Etruscans. That too happened during my undergraduate years, though the prompt came not from the classical tripos but rather a juvenile fondness for D H Lawrence. Nowadays I find Lawrence mostly unreadable, but I still cherish his posthumous *Etruscan Places* for its polemical tetchiness and darting flights of wishful thinking. Inspired by Lawrence (and assisted by a college travel grant) I did a walkabout of Etruscan sites one summer. Subsequently I returned to one of those Etruscan places, Cerveteri, as a doctoral student, joining a team of Italian archæologists. We frequented a bar in the modern town where numerous images of the Sarpedon krater were on display. Rumours claimed that the vase had been looted from a tomb near Cerveteri; the proprietor of the bar cheerfully told us he knew the exact whereabouts of the raid. Since Cerveteri was already established as a principal provenance for vases by Euphronios – the Etruscans collected such objects, very likely with the intention of taking them to the grave, to supply an afterlife of feasting – and since we had direct experience of mischievous digging by the local clandestini, these rumours were plausible. Everyone knew that the Sarpedon krater had set a new price record when purchased by the Met in 1972, so it was 'the million-dollar vase'. But the process of unravelling the heist whereby it had been ransacked from a tomb at Cerveteri, smuggled to Switzerland and then sold on the back of an elaborate cover-story, lasted several decades. A triumphant 'homecoming' of the vase to Italy eventually took place in 2008.

It was in 2015 that a publisher wrote to me, soliciting a contribution to a new series about 'landmarks' of world culture. The suggestion was that I write a monograph devoted to the Parthenon. I immediately declined: there are plenty of books in print about the Parthenon. Further solicitations followed. What about the Pantheon, then? Or Hadrian's Wall? – et cetera? I was mid-way

through composing a peevish response about walls not constituting landmarks of world culture when I looked up at the noticeboard by my desk. There was the stretched-out hero: only the day before, a glance at his neat abdominal section had reminded me to resist a second helping of college syrup sponge. Could a vase – a large vase, but still a vase – qualify as a landmark?

As it happened, I had in my teaching repertoire a lecture about the vase and its 'afterlife': tracing a sort of iconographical *fil rouge* from the motif created in the late sixth century BC by Euphronios, through antiquity – on various media, most conspicuously on relief-carved sarcophagi – to the Renaissance (when it is known that artists routinely used ancient sarcophagi as sources and models for figurative schemes). It made a satisfying example of the historical process studied by the art historian Aby Warburg and his followers, whereby classical images are recycled for non-classical purposes: in this case, one could do a tracking investigation that ultimately connected the vision of Sarpedon by Euphronios not only to a sacred tableau by Raphael (ie his *Deposition*, in Rome's Borghese Gallery), but also to pictures by latter-day war-photographers such as Larry Burrows.

'You're writing a book about an old vase. [Pause]. One old vase?' My mother, who has abandoned hope of her son producing something she can read in the bath, was incredulous. In truth, I was slightly surprised when the publisher accepted my proposal, without demur. However splendid the krater seemed to me, and people at the Met, and the late Professor Robertson, should it really be considered along with such hulking achievements as Stonehenge, the *Divine Comedy*, and the *Eroica* symphony? But any doubts over the validity of the project soon evaporated once I began to pursue its research and writing. A necessary first chapter on the krater's modern adventures involved a certain amount of criminal investigation; thereafter, the sleuthing was a more congenial pursuit of traces, clues and 'giveaway' signs left by an image as it passed down many centuries. Sarpedon's dangling arm, for example, trailed far beyond him: it came to denote the traumatic death of heroes mythological (eg Meleager) or historical (eg Julius Caesar), before being transferred into Christian service, and that

was not the end: so we find that when J-L David came to paint his memorable scene of the French Revolutionary hero Marat dead in his bath, the figure's posture was essentially taken from sketches that David had made of an antique sarcophagus in Rome, which in turn was ultimately indebted to the pioneering draughtsmanship of Euphronios.

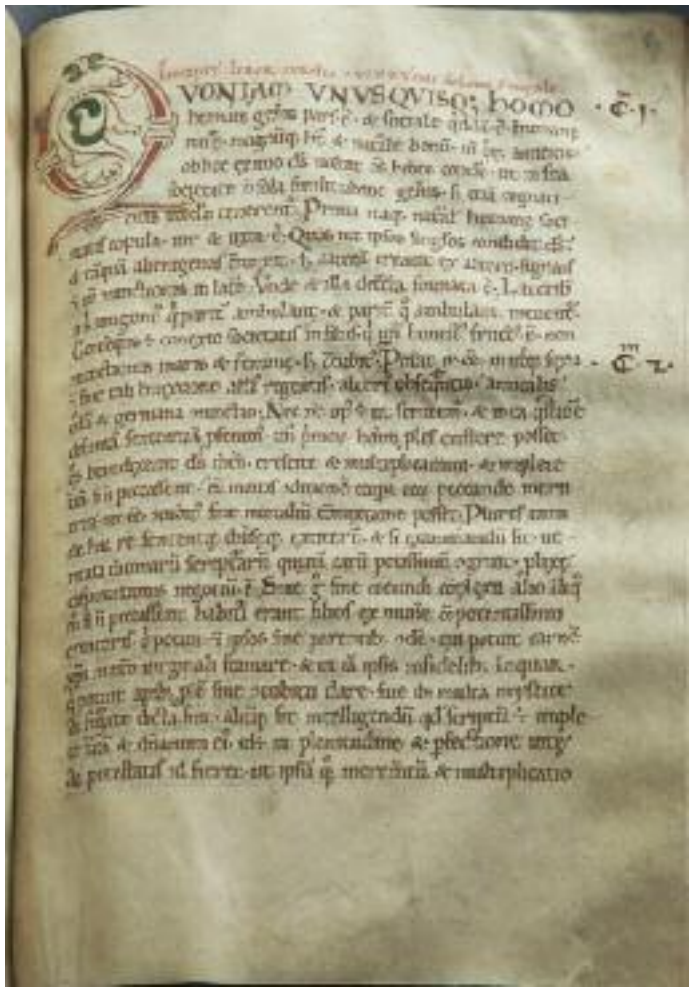
It is expected of modern academics that they produce 'publications', year by year. University managers endeavour to find ways of calibrating the quantity, quality and even the utility of what is produced. But I think it is true to say that many of us, at Emmanuel and elsewhere, despite the official impositions of 'research assessment', pursue what are essentially labours of love. (In the real world this may be what is meant by the phrase 'sweat equity'.) The Sarpedon krater has its capital value; and arguably the motor skills involved in its shaping and decoration have disappeared, so a scholar might feel obliged to explain, scientifically, the object as a thing of beauty. Beyond such obligation, however, lies pure curiosity. To follow that motive is what the college allows. Decades on from my first encounter with this ancient and enchanting example of human ingenuity, I can still hardly believe how fortunate we are to have that allowance.

Nigel Spivey, *Fellow*

St Augustine's de Bono Conjugali *and Pastoral Care on Marriage in Early Norman England*

The oldest surviving manuscript of St Augustine's *De bono conjugali* in Norman England is Cambridge Emmanuel College MS I.2.5 (no. 26), fols 67r–80v).

It forms part of a small group of manuscripts collected together by the early post-conquest bishops of Chichester to assist with pastoral guidance for priests. Amongst them the twelfth-century



Emmanuel College, Cambridge MS I.2.5 (no. 26) fol. 67r Reproduced with the kind permission of the Master and Fellows of Emmanuel College, Cambridge

chronicler William of Malmesbury singled out the Norman prelate Ralph Luffa (1091–1123) as a man deeply concerned with religious reform and care for his see. Although Professor Richard Gameson (Durham) has identified the group of Chichester manuscripts, no study of the individual volumes has yet been made. Given the emphasis archbishops Lanfranc (1070–89) and Anselm (1093–1108)

laid on good education of priests and proper conduct of the clergy, the earliest surviving copy of St Augustine's *De bono coniugali* throws light on the pastoral perceptions of marriage in post-conquest England.

Let me begin with the manuscript. Cambridge Emmanuel College MS I.2.5 (no. 26), was written in *c.* 1100–30 in a Norman hand and originates from Chichester. It is a volume devoted to early Christian views on marriage and virginity. The book opens with Jerome's *Contra Iovinianum* (fols 1r–66r), a deeply misogynistic treatise on the disadvantages of the married state, written against the heresy of Jovinian *c.* 390, that would be immensely influential in the Middle Ages by fuelling an anti-marital literary tradition. It praises virginity as the ideal state for women to be maintained and to be preferred to marriage. However, at the time of composition at the end of the fourth century, it was already seen in some quarters as far too hostile to marriage and to married women in particular. St Augustine was one of its critics who set out his ideas in his own treatise *De bono coniugali*. He represents a more positive and compassionate view of marriage, in particular by stressing that society needed married women for the conservation of humankind and as a remedy against sexual lust. In the Emmanuel manuscript St Augustine's treatise follows Jerome's *Contra Iovinianum*. The other texts in the manuscript are devoted mostly to virginity: St Augustine's own treatise *De sancta virginitate* (fols 80v–100r), followed by the brief *Retractio in libro de doctrina christiana* (fol 100v) and *Retractio in libro de sancta virginitate* (fol 101r), and a letter by Origines (fols 101r–102r). The Chichester manuscript of *De bono coniugali* is the oldest copy to have survived from after the Norman conquest, even though another contemporary copy existed at Peterborough. It is known from a booklist datable to *c.* 1100–20 which can be found in Oxford Bodleian Library MS Bodley 163 on fol. 251r. For the moment we might note that both early twelfth-century copies originate from episcopal libraries.

The library of Chichester cathedral was home to our manuscript together with four others. They all date from between the late eleventh to the early twelfth centuries, and were either

written by Norman scribes in England or had been imported from Normandy. As we shall see, there was at least one other manuscript at Chichester given to the cathedral by the monks of Battle Abbey. In 1075 the see of Chichester had been moved from Selsey, the Anglo-Saxon see founded in the late seventh century by the English bishop Stigand (1070–87), who should not to be confused with his older contemporary and namesake Archbishop Stigand of Canterbury (d. 1071). The move to Chichester was not unusual as in eleventh-century England several other bishops had moved to new headquarters. In 1050, the bishop of Crediton left to set up his see at Exeter; after the conquest the bishops of Dorchester and Lichfield moved their sees to Lincoln and Chester in 1072 respectively; and Thetford's bishop moved to Norwich in the mid-1090s. These moves often resulted from socio-political reasons, with the larger towns better able to cope with the administrative responsibilities of the bishop. At Chichester Stigand began the construction of the new Romanesque cathedral. He was succeeded in 1088 by the short-lived Norman prelate, named Godfrey or William. In turn his successor Bishop Ralph Luffa (1091–1123) also came from France and had been chaplain and justiciar at William Rufus' court. Given the date of the five early Norman manuscripts, most, if not all, date from Bishop Ralph's time. Other manuscripts were added as gifts to him. For example, according to the *Battle Abbey Chronicle*, compiled in the 1180s, the monks of Battle gave a manuscript of Jerome's *Letters* to the bishop in the early 1120s as part of a settlement of a dispute. This book was popular because at least four other copies could be found at the time in other episcopal cities such as Bath, Durham, Rochester and Worcester. At Chichester the man responsible for the collecting of these books was Bishop Ralph Luffa, who took his episcopal duties very serious indeed.

Most of what we know about him derives from William of Malmesbury's *Gesta episcoporum Anglorum*, c. 96, written in the mid-to-late 1120s. There Ralph was credited with fierce resistance to fiscal demands from kings William Rufus and Henry I. Eventually he had to give in after Archbishop Anselm (1089–1106) had left the country for exile. In particular, it seems that in *c.* 1106–07 Ralph had

fiercely resisted the tax imposed by Henry I on married priests, and – according to Malmesbury – apparently the king caved in and withdrew the tax on account of Ralph's protests. The bishop's advocacy on behalf of the married clergy would have been partly grounded in his concern that the priests' pastoral care for the laity might be compromised if their own livelihood was put under severe financial, if not emotional, strain. In fact, Ralph's principled stance drew the king's admiration and in turn the king supported the see liberally after a fire destroyed the new church in 1114. Ralph himself was liberal too and bestowed several ornaments of different kind (*ornamenta omnis generis*) on the church, objects that might well have included the books copied during his tenure. He excelled as pastoral leader in that he travelled round his diocese not twice as was customary but three times per year, preaching and visiting churches and monasteries. For the purpose of this paper William of Malmesbury's information is important, as his portrayal of Ralph suggests a man concerned with priests' moral wellbeing, the pastoral care exercised by priests for the laity, as well as the restoration of the fabric and contents of his cathedral church, including the cathedral library. That the books were mostly patristic texts on the basic tenets of the Christian religion and its proper implementation constitutes important evidence that Ralph, like so many of his colleague bishops, was determined to provide their clergy with the theological background essential for a proper explanation of all aspects of faith to the laity as well as priests. St Augustine's *De bono coniugali* was one of them.

In *De bono coniugali* St Augustine argued that the first natural bond of human society is that of husband and wife, a union in which the former ruled and the latter obeyed (c. 1). Such unions are good because marriage provides the appropriate bond for procreation of children when the couple are young, as well as a charitable bond between them when they are older. St Augustine uses the word *caritas* to describe a charitable state that is best served by sexual abstinence of a married couple after they have had their children, whose care remains the first and foremost of their responsibility as father and as mother (c. 3). Marriage as a bond is

the exclusive union between a man and a woman for sexual intercourse in order to pay each other their reciprocal marital debt, stipulated by the apostle Paul (c. 4–5), which thus also prevents adultery (c. 6). Marriage should be seen as a necessary good given by God for the procreation and continuation of mankind and it indissoluble (c.7–12). Several chapters (c. 13–14) are concerned especially with women, probably in the context of the contemporary discussions in the late fourth century to which I have alluded as to whether women should remain virgins, a situation, so St Augustine argues, that would be impossible to maintain if mankind is to be continued, or in other words the human race to be conserved (c. 17–18). The church father also underlined the importance of the sacramental character of marriage and stressed that for this reason the bond is indissoluble. Neither husband nor wife can have multiple partners (c. 20–21). In several chapters St Augustine commented on various biblical passages used to bolster his arguments. Finally, towards the end of the treatise he unambiguously stressed that although for women being a virgin is the highest state of being, this does not mean that married women are not valued by God. Both virgins (male and female) and married people illustrate the good God has given to society (c. 30–31). On balance, therefore, St Augustine provided pastoral guidance advising marriage as a good thing for couples, as it would be to the detriment of humankind if no-one were to marry and procreate. Society benefits if husband and wife behave well and invest in their marriage by providing for each other sexual intercourse for the procreation of children, behaving charitably to each other and being good parents. This way they will be rewarded in the afterlife just as the men and women who abstain from sex and live as virgins. As far as the church was concerned in medieval Europe, St Augustine's blueprint for a peaceful society consisted of married couples with children as the backbone of the conjugal family. Post-conquest England was no exception, even though the socio-political circumstances of the first generations after 1066 made this a particularly demanding challenge for the Anglo-Saxon victims of conquest as well as for the Norman conquerors.

Episcopal concern for marriage, to which St Augustine's *De bono coniugali* testifies, centred in England on two closely linked issues, namely the marriages of the laity and of the priesthood. Clerical marriage had been forbidden at the council of Westminster in 1076, the first occasion after the Norman conquest when William the Conqueror and Lanfranc began to implement reform policies current in Normandy. These prohibitions were repeated at the Westminster council (September 1102), London (May 1108), Westminster (September 1125), Westminster (May 1127) and London (October 1129). Given the need for repetition, implementation was virtually non-existent. In fact, despite the numerous efforts of Henry I, or at least his archbishops, England lagged behind Normandy and the rest of Europe with regard the implementation of papal policy. As we have seen, according to William of Malmesbury, Bishop Ralph Lufta was particularly upset about King Henry I's imposition of taxes on the married priests. This deserves an explanation as it looks as if the king showed leniency (of sorts) by allowing the clergy to remain married in lieu of a fine. Sometime between 1105 and 1108 he took advantage of Archbishop Anselm's exile to use the married priests as a source of income, but it seems that he had to abandon this policy, only to resurrect it much later in 1129. According to the biographer of St Anselm, Eadmer of Canterbury, on the earlier occasion 200 priests approached the king barefoot in London to implore him to change his mind. When Henry I refused, the priests turned to his wife Queen Edith-Matilda: 'She, it was said, was so touched with sympathy that she dissolved into tears, but was too afraid to intervene'. Eadmer's testimony is important evidence for queenly sympathy for married priests (and their wives) and for her reluctance to act as mediator on this occasion. This was unusual reticence in a queen often compared to the biblical Esther, a medieval role-model for queens. It may be significant that the resurrection of the imposition of fines on the married priests did not happen until a decade after Edith-Matilda's death. As we have seen, according to William of Malmesbury it was not the queen but Bishop Ralph Luffa who had been instrumental in putting a stop to the tax, presumably out of concern for the priests' provision of pastoral care.

Much less is known about the new conquerors' attitudes to lay marriage, which was a less controversial subject amongst the newcomers themselves than priests' marriages. Archbishop Lanfranc was concerned about marital practices in Ireland, but also in England. He wrote to his English colleagues about the proper observance of marriage amongst the laity. In a letter to Abbot T, Lanfranc responded to T's query concerning adultery between an unmarried English couple called Godwin and Lifgifa. Lanfranc had examined their case by hearing their statements in London and declined to discuss their case any further. Instead he ordered that the abbot should eject the woman, who had since died, from the churchyard on grounds of her excommunication. He had also reminded Bishop Thomas of York (1070–1100) that divorce was unacceptable, citing the gospels of Mark and Luke and referring his correspondent to the many patristic texts on the indissolubility of marriage. More pertinent for us is a Chichester case from the time of Bishop Stigand (1070–87) which constitutes an early English example of a woman's appeal to the pope in Rome. The precise reason why the anonymous woman, having been rebuked by Stigand, appealed to the papacy is unknown. It concerned some aspect of the validity of her marriage, which had convinced her that she could leave her husband. Lanfranc wrote to Stigand that the pope (probably Gregory VII) had advised that he should give the case 'a thorough hearing' (*diligenter audiam*). Meanwhile, Lanfranc ordered her to return to live with her husband until he had had an opportunity to discuss the case with his fellow bishops. Unfortunately, the outcome of this particular case remains a mystery. These late eleventh-century English cases illustrate the tricky issues on the validity of marriage bishops were supposed to deal with, in an era when the guidance on their rulings had to be distilled from the authority of the bible and church fathers, especially St Augustine. The canon law on marriage was still rather vague and would not be defined until the ruling of Pope Alexander III in the early 1180s.

There is no doubt, however, that increasingly the church saw a role for itself in encouraging the laity to have their unions blessed by a priest and preferably in public, so that the union would be

more easily recognised in the community as a permanent and indissoluble one. This would benefit society in the sense that the couple would take on responsibility of care for each other, their children and their possessions. In Anglo-Saxon England an early eleventh-century tract known as the *Wifmannes Beweddung*, written under the aegis of Archbishop Wulfstan Lupus of York (1022–23), had stipulated that a priest should be present at the wedding ceremony. Perhaps as a result of English influence, in Normandy the priestly benediction was known in eleventh-century liturgical texts and in 1072 the synod of Rouen held that a priest should be present at the making of a marriage. One of the most important texts at the disposal of bishops and clergy to bolster their authority over marriage rituals was St Augustine's *De bono coniugali*. It provided, as we have seen, a sympathetic rationale – for clergy to preach from and for the laity to listen to – as to why marriage was a good thing for Christian society in general and for couples in particular. St Augustine's blueprint for solid marriages of couples that stuck together to provide each other with sexual intercourse for the sake of children and a loving bond for a contented old age, contained an ideal message for bishops to spread to clergy and laity alike.

The Emmanuel copy of *de bono conjugali* bears witness that this message was deemed particularly relevant in a newly conquered country. The English were still coming to terms with conquest and settlement by a foreign ruler and a clerical elite of bishops and archdeacons that was drawn almost exclusively from abroad. The irony therefore is that in early twelfth-century England St Augustine's ideal seems to have been picked up by married priests themselves and by the bishop of Chichester, rather than by the very laity for whom it was intended.

Elisabeth van Houts, *Fellow*

In Conversation With a Medieval Natural Philosopher: An Interdisciplinary Adventure

The manuscript collection in Emmanuel College library contains a treasure: our MS 27 contains a detailed and expansive early thirteenth-century pastoral text on the sacrament of confession. Superficially unremarkable, on closer examination the *Templum Dei* reveals an unusually comprehensive treatment, structured almost mathematically around tables of cases and best practice. It also stands out within the genre for its scientific references and natural metaphors. What mind would write in such a way during the high Middle Ages? The treatise is one of the best-known of the extraordinary polymath Robert Grosseteste (Fig. 1), whose wide-ranging intellect encompassed philosophy, theology, pastoral studies, the range of the medieval liberal arts and serious ecclesiastical politics. Teacher to the early Oxford Franciscans and later bishop of Lincoln (1235–53), he is also the first thinker on record to have identified refraction as the underlying cause of the rainbow: a clue as to why the present author, a physicist working 800 years later, might just become entangled in the thought-world of this medieval master. I have been reading him now, working through his writings and thought in the company of other scientists, historians, philologists, Latinists, theologians and philosophers for over ten years, within the Ordered Universe project, probably the most exhilarating interdisciplinary collaboration I have ever experienced. One other colleague has increasingly appeared

Figure 1: One of the very few portrayals of Robert Grosseteste (https://upload.wikimedia.org/wikipedia/commons/e/e3/Grosseteste_bishop.jpg)

present as a living voice around the table: Grosseteste himself has turned out to be an inspiration not only for renewed scholarship on his own thought but, out of all expectation, by stimulating new science today.

But I am getting ahead of myself. The story has its beginnings long before the formation of the Ordered Universe, during my time as an undergraduate, research student and Fellow at Emmanuel in the 1980s. It is a commonplace observation that colleges constitute the natural interdisciplinary meeting places in universities fortunate enough to have them. Table-talk and college society provide not just opportunities for explicit discussion of others' work – I recall conversations on the way that science is historically framed, comparative methods in theology and literary studies, the way that imagination differs in poetry and mathematics – but also constitute a continual backdrop for the way that others think and speak. This awareness of the unity underlying our superficially fragmented academic project goes very deep. I think it must have been the experience at Emmanuel that later propelled me, as a professor of polymer physics at Leeds University, to slip out of the physics department each Wednesday afternoon to attend the university's weekly seminars in the history and philosophy of science.

One of the medieval scholars at Leeds at that point was Jim Ginter, who has carried out a life-long study of Grosseteste's philosophy. I was raised, as most people with a scientific training are today, on the nursery tale that ancient Greek science lay dormant until the project was resurrected in the Enlightenment. So I was intrigued to hear of a figure living over 400 years before Newton who was thinking seriously about the structure of nature, its description in mathematics, and the subtle ways in which human investigation might discover new natural knowledge. I made a mental note to read some of his original scientific texts when time allowed, although this worthy intention was initially frustrated by the discovery that a Latin O-level would not be equal to understanding edited versions of medieval Latin treatises. It was not until the summer of moving to Durham as pro-vice-chancellor for research in 2008 that I discovered an English translation, by Claire Riedel, of

Grosseteste's *De luce* (*On light*, *c.* 1225) and satisfied my curiosity about what a thirteenth-century thinker wrote about the phenomenon that was to tax Newton 400 and Young 600 years later.

I was astonished. The metaphysical and theological musings on light and luminosity that I was expecting failed to appear. Instead, Grosseteste embarked on a specific and pointed critique of classical atomism: that it cannot explain the three-dimensional extension and stability of matter. For classical atoms are indivisible and point-like: they possess no volume, and 'however large a number' of such infinitesimal objects one possesses, as Grosseteste puts it, one still has no finite quantity. This is impressive thinking by any account, for it provides an early example of one of the greatest powers of science: the ability to distinguish the familiar from the understood. Just because we are familiar with our ability to sit on chairs without falling through them does not mean that we understand it. Many of us might never think of this observation as a conceptual problem (it is a comforting and convenient 'problem' after all), but thinking of atoms classically – tiny particles moving in orbit around each other through mostly empty space – reveals the paucity of such a theory. We ought to pass through a chair made of such 'classical' atoms as easily as two galaxies of stars pass through each other when they 'collide', for they too are mostly empty space. On the scale of a galaxy, stars are effectively points of no volume. Using Aristotelian rather than late-modern atomistic theory makes no difference to the overall argument. Grosseteste knew that something else is required to render stuff solid. This was his entry cue for theorising on light, for he knew by observation that light does have the capacity to fill all of space surrounding its source, apart from regions cast into shadow by obstacles. Thinking mathematically, he thought about reasons why light 'multiplies itself infinitely'. His idea was that if light were to dwell in matter, then its own infinite multiplication would balance the infinitesimal volume of the atoms themselves and result in finite fixed volumes. Or, 'if not light then something that shares in the same qualities as light'.

Now I was really intrigued, for the problem about the stability of matter does indeed find its resolution in endowing matter with

'something that shares in the same qualities as light, that is the wave nature described by the quantum theory of the 1920s that did, for the first time, explain why atomic matter is resilient to compression. Electron waves resist overlap, and chairs work. At this point it is important to stress that any admiration for medieval thinking of this kind is not because its originator was '800 years ahead of his time'. Grosseteste's was a thirteenth-century mind in every sense and scientific history, like any history, is weakened when it insists on looking at the past through the evaluative lenses of the present. It is important to read medieval philosophy on its own terms, not to judge it by ours. Yet by doing so it becomes all the more impressive.

My new job at Durham brought with it the enviable aspect of regular conversation with every department, centre and research institute in the university. As a physicist I was keen to reassure humanities departments in particular that I valued what they did as highly as the work going on in the science faculty, so the opportunity to share my naïve impressions of the *De luce* at a Tuesday evening seminar of the university's Centre for Medieval Studies seemed a good way to get out of my comfort zone with some new colleagues. Amazingly they did not laugh at me, but were as intrigued as I was that a twenty-first-century scientist might resonate with, and even ask questions of, a thirteenth-century forbear. We discussed the possibility of a reading group of scientists and humanities scholars that together might bring more light to bear on this early natural philosophy from their joint perspectives, than either could individually. Dr (now Professor) Giles Gasper of Durham's history department seized on the idea, and together we put out a general call for other scientists who might be interested.

An Ordered Universe

That was the birth of the Ordered Universe research project, which since 2009 has grown into a major international collaborative effort, bringing together a very wide range of scholarly disciplines from both sciences and humanities. The project's focus is a fresh, interdisciplinary examination of the full gamut of Robert Grosseteste 13

scientific treatises on natural phenomena. The corpus was written between the period from *c.* 1200 to *c.* 1228. The treatises cover a wide range of subjects: sound, the universe, time calculation, comets, the movement of the planets, the nature of space and place, the medieval elements, differences in geographical location, lines, angles, colour, light (the *De luce* that I had started with) and the rainbow. The breadth of subject-matter and Grosseteste's own methods of investigation and interpretation are challenging for late modern readers, both by their intrinsic difficulty and also by their historical distance from us. However, the ramifications of the project on the legacy that the period has for the way we think today, and on how we can work creatively between and among disciplines from the humanities and sciences, moving from respectful conversation to intense collaboration, make it all the more radical. Illuminating and sheer fun.

At the beginning we hoped that the scientific members of the team might be able to assist in the preparation of new editions, translations and commentaries on the texts, perhaps through identifying their mathematical structure and scientific significance, and judging which observations of natural phenomena reported in them might be realistic and which fanciful. What none of us expected is that, for every one of the treatises, at some point in the reading process one of the scientists would stop to muse, 'did anyone ever do that experiment?', or 'that's a calculation we could actually perform now; did anyone ever try?' As a result, as well as the 'humanities' publications that now have scientists as co-authors, the project has also produced a series of scientific publications stimulated by Grosseteste's ideas, written by the scientists, in association with the humanities scholars. We have surprised several journal editors (even those of the *Proceedings of the Royal Society*) by submitting papers whose reference list begins with 'R Grosseteste (1225)'. Our collaborative journey has taken us from mutual interest in a treatise from 1225 on the metaphysics of light, to new editions, translations and science published in leading scientific journals, and more recently to a series of creative collaborations with artists and educationalists. Picking up a small

networking grant from the UK Arts & Humanities Research Council (AHRC) in 2012 allowed us to build a wider international collaboration that included scholars from Italy, the USA and Lebanon, with expertise on Grosseteste's science, medieval philosophy and Arab studies. Producing an early co-written monograph together with a collection of scientific papers on colour and the rainbow led to a much larger grant, and finally the commission from Oxford University Press of a seven-volume series of new editions, translations and commentaries on the scientific opuscula. Here I give a few examples of glimpses into the appreciation of a deeper history of science that the Ordered Universe project has allowed.

In November 2015, we completed our collaborative deliberations on the earliest of Grosseteste's treatises, the *De generatione sonorum* ('On the generation of sounds'), and the *De liberalibus artibus* ('On the liberal arts'), which features a preliminary version of Grosseteste's theories on sound. He asked a typically insightful question: 'what is it that endows an object with the ability to generate sound?' Such an object (a *sonativum*) when struck has its parts moved from their natural place, he supposed; then the nature and inclination of that sounding object tries to bring these parts back to their original positions. However, in so doing, the parts move beyond their original positions, and the repeated oscillating motion creates a sequence of alternate extension and contraction of the longitudinal and latitudinal diameters of these innermost parts. These movements set up a vibration which, Grosseteste stated, is 'evident to sight and touch'. The vibration moves the air and thereby reaches the ear. The sensation of hearing is generated as a result. The treatise then advanced this theory to consider the phonetic application of the generation and perception of sound, using the example of vocal production relating to vowels.

These two treatises on sounds reveal Grosseteste's particular talent for uniting disparate sources of information, book-learned and observed, into a coherent argument. Augustine, Isidore, Priscian and Aristotle were all sources for his analysis of both sound and hearing, and particularly of the workings of the human voice.

There are also physical, mathematical and psychological aspects to the treatise. The physical acoustics of objects that might have displayed the biaxial motion that Grosseteste described can be explored, mathematical analysis of the combined motions for vowel shapes can be carried out, and the psychological association of sound with letter shape can be examined. This last question has led to a fascinating example of inspired scientific study: 'On the generation of sounds' conjectured that the reason that more than one language uses the same symbols to record the same vowels is that these shapes describe the forms of our vocal apparatus when those vowels are sounded. So, mouths are rounded to make an 'O', opened at the front like the base of the letter 'A' to make that sound, and so on. Professor David Howard, then of the University of York, is an acoustic engineer with a specific interest in the human voice (we were also both parents of choristers at York Minster at the time). His laboratory turned out, as I had hoped, to have the apparatus necessary to test Grosseteste's hypothesis, including the ability to construct artificial larynxes of arbitrary shape. Professor of experimental psychology at Oxford, Hannah Smithson, designed a rigorous psychological test for vowel identification to accompany the acoustic analysis of the sounds produced. The strong positive correlation tells us that, at the very least, Grosseteste possessed a strong awareness of the forms his own vocal tract was adopting when speaking or singing.

Three-dimensional colour

A direct way that a contemporary scientific analysis of the texts may improve the quality of editions themselves appeared when reading the very first example when the project proper began. With only some 400 words in Latin, the *De colore* ('On colour') is a tight and logical jewel. The formation of our first questions as to how to approach this text created an interdisciplinary response that has continued to shape the project ever since. Although short, the concentration of ideas in the treatise and its mathematically ordered grammar, taut prose and oblique references to Aristotelian

and Arabic thought have puzzled scholars since its last edition, made by the German scholar Ludwig Baur in 1912. Baur's edition was a remarkable achievement in its day, but is now showing its age and limitations. He was familiar with less than half the manuscripts currently identified as containing the scientific works, and those he used were typically late copies of the text, preserving a higher percentage of copying errors.

While the treatise might not contain equations, its logic is clearly mathematical: a listing of the qualities of colour leads to a subtle counting argument, equivalent to the statement that colour exists in an abstract three-dimensional space. 'On colour' defines colour as light embodied in a suitable medium, with three bi-polar qualities, two of light and one of the medium. These combinations of light do not, however, follow our contemporary colour-space coordinates of red, green and blue (RGB). Rather, Grosseteste invoked the Latin terms *clara* and *obscura* for the extremes of the first 'dimension', *multa* and *pauca* for the second, and for the third an axis of qualities that belong to the medium in which the colour is formed: *purum* and *impurum*. Mysterious though this nomenclature might be, it situates Grosseteste as an intellectual forerunner of Thomas Young (Emmanuel 1797), who brilliantly, and correctly, conjectured that the mathematically three-dimensional conceptual frame for the perception of colour could be explained by the existence of three different light-sensitive detectors in the human retina. Grosseteste's treatise goes on to explore how these combinations, moving between the two extremes of blackness and whiteness, produce a middle space in which all possible colours exist, a move from discrete to continuous gradations of colour and an intriguing reference to things one could prove *per experimentum* [through experiment or experience].

The treatise was written in Latin (hence the need for Latinists). It exists in 11 manuscripts scattered about European libraries and of uncertain provenance (signalling a need for palaeographers). It draws on early medieval Arabic philosophy and mounts an implied critique of Aristotle (the specialisms of historians of philosophy and Arabists). It refers to the human perception of colour in detail

(hence the need for colour vision psychologists). It invokes enumerative combinatorics (thereby raising a need for mathematical physicists).

There was one awkward flaw in the mathematical perfection of 'On colour'. 'White' is described as the three-dimensional 'co-ordinate' (*multa*, *clara*, *purum*), yet when the tour of colour space comes to black, Baur's edition picks up only two of the three expected terms (*pauca*, *obscura*, *impurum*), missing out the expected *obscura*. This does not offend grammar or sense, or even philology or the Aristotelian natural philosophy of form; only the global mathematical sense is irked by the loss of the triplet coordinate set. The question of a possible scribal error inherited by Bauer's edition was raised. As earlier and better manuscripts have come to light since his work, Giles was able to consult a manuscript in Madrid from a much earlier branch than Baur had access to, and sent back a photograph of the relevant page where, just as the mathematical reading of the text had predicted, the word *obscura* lay in full three-dimensional completion of its description of blackness (Fig. 2).

Figure 2. Discovering the word 'obscura' in its predicted position within the Madrid manuscript copy of De colore (illustration by Rosie Taylor)

Over the rainbow

The combination of Latinists, historians, philosophers, mathematicians and psychologists represents only the bare minimum of interdisciplinary mix. Later we discovered that the colour theory could only be completely understood when compared with

Grosseteste's related treatise *De iride* ('On the rainbow'). To understand fully that treatise required a detailed knowledge of meteorology (so an atmospheric scientist), physical optics (more than one experimental physicist/engineer), and atmospheric absorption of sunlight (an astronomer). This amounts to a considerable collection of disciplinary perspectives. All were required to elucidate Grosseteste's extraordinary textual legacy on complex natural phenomena. The topics that he investigated are complex and our current understanding of them draws on all of these (now fragmented) disciplines. To leverage modern understanding both of Grosseteste's world and the phenomena involves a significant number of scholars. The complex nature of his scientific texts, the precision of linguistic expression and their computational virtuosity present intellectual challenges that can only be addressed with an interdisciplinary approach. The stereotypical view of the Middle Ages as a period of scientific stagnation, a dogmatic straightjacket, at best a recapitulation of antiquity, could not be further from the truth.

Their living quality is also illustrated by the consequence of studying the *De iride*. In spite of the successful mathematical analysis of the work on colour, we were left frustrated that, apart from white and black, no colour terms were used at all in the *De colore*. It proved impossible to say how we might map the medieval dimensions of purity, clarity and greatness onto reds, greens and blues, if at all. If only we had the ability to return to 1225 with a modern colour chart and ask the Oxford master to identify where his terms applied. Then, reading the work on the rainbow, which is mostly about the geometrical optics of refraction, we encountered with joy the final paragraph, where rainbow colours were described in terms of *multa/pauca*, *clara/obscura* and *purum/impurum*. Rainbows have not changed between the thirteenth century and today: they constitute our time-travelling colour chart! Furthermore, Grosseteste made a remarkable conjecture: that all possible rainbows, in all types of cloud, illuminated by all colours of sunlight, cover all colours. Reading that was one of the scientific moments of inspiration, for no-one had ever explored that notion, although we now have the ability to investigate such a claim by pure calculation. The optics of rainbows are now understood (and different sizes of

raindrops do indeed give rise to different colours of rainbow), and the spectral absorbance of solar radiation by the atmosphere is tabulated. Finally, the spectral sensitivities of the human retina's 'cone' cells are known. Projecting the spectra of possible rainbows into the RGB colour cube produced objects of stunning visual, as well as mathematical, beauty (see Fig. 3a). It also gave rise to a ground-breaking publication in the scientific literature, subsequently generating a comment paper in *Nature Physics*.

We have found it essential to add medieval Arabist expertise to the project, especially when studying Grosseteste's works on optics such as the *De iride*. Grosseteste was one of the first generations of western scholars to engage with Aristotle's natural philosophy by means of translations from Greek and Arabic into Latin. This process, which started in the early twelfth century, continued throughout the thirteenth. Where Aristotelian works themselves were translated predominantly from Greek, western scholars also engaged with the rich and diverse tradition of commentary on them by Islamic scholars. Figures such as Al-Farabi (872–950), Ibn Sina (980–1037) and Ibn Rushd (1126–98) became familiar in the Christian West under their Latinised names (in the case of those above: Alpharabius, Avicenna and Averroes). By the end of the thirteenth century, as Robert Bartlett puts it, 'the entire scientific knowledge of two cultures had become available through the translation movement'. Translation of Jewish philosophical reflection, such as the *Fons vitae* ('Fount of life') by Iberian author Solomon ibn Gabriol (Avicebron) also played their part in the astonishing broadening of the intellectual inheritance of the medieval West. The range of textual sources that Grosseteste seemingly acquired was extraordinary. 'On light', which so impressed me even at my early and superficial reading, is a veritable homage to ancient and early medieval cosmology, classical, Christian and Islamic.

Practice: collaborative reading

With a significant number of participants and a diversity of backgrounds, we have developed a number of working practices that, taken together, point towards an iterative methodology of

collective engagement that offers an example of effective interdisciplinary working, which can be taken beyond the project itself. Practice and reflection depend on the relations between individuals, their background, training, interests and encounter with Grosseteste's thought, and the different tasks that need to be carried out as a group: reading, oral discussion, modelling, coding and analysis, calculating, mathematical interpretation, finding and incorporating relevant data (such as solar spectra in the work on rainbows), and writing. We did not embark upon the project with an explicit theory of interdisciplinarity, and we continue to develop the project's interactions from its intellectual (and administrative) requirements. Yet an experience of this kind leads naturally to thinking beyond the project itself

The most obvious disciplinary distinction within the research group is that between humanities and science. Without entering into a discussion of the two cultures, our experience has been that distinctive differences have gradually moved into the background as the project has advanced. Some clear distinctions remain: an instinctive movement towards mathematical or linguistic expression, a tendency towards visual and diagrammatic evidence on the part of scientists, practices of collaborative writing more easily adopted publicly by scientists, practices of source criticism and historiographical detail more commonly adopted by humanities experts. Yet none of these distinctions between science or humanities scholars is fixed.

Collaborative reading is the foundation of the project. For each of the three or four symposia that the Ordered Universe holds each year, the palæographer and Latinist will have prepared a draft edition from the various manuscripts (with a list of Latin variants should we need them), together with a preliminary translation. We then read the treatise together, word by word, line by line, paragraph by paragraph. One member of the group acts as narrator and reads aloud the text of the English translation. The oral experience is an important one, allowing comparison with the Latin edition and a pace suitable for discussion and questions. Given the oral nature of medieval education, there is some sense too of experiencing

the text in however attenuated a form, in the manner in which it was intended. In this process the scholarly apparatus required to understand the text is the same for all participants. The scientists are not spared the details of the text, languages and historical context, nor the humanities scholars the discussions on the geometrical or combinatorial logic implied by the text, or the questions of what natural phenomena might have been in the perception and mind of the writer. The reading group regularly breaks off to experience a simple scientific demonstration or calculation.

The act of translation within the group context becomes a highly interdisciplinary and non-linear practice itself. This is necessary to deal with the 'catch-22' problem that while it is not possible to translate the texts properly without knowing their mathematical and physical meaning, it is also hard to identify their mathematical and physical meaning without some sort of translation. This conundrum is resolved by iteration. A first pass of the literal translation often reveals sections where the meaning is far from clear, but in mutual struggling with the text a plausible rendering among the alternatives eventually surfaces. In descriptions of natural phenomena, physical processes or geometrical patterns, the mathematical logic of Grosseteste's discussion is often central to teasing out the meaning of the text. The essential ingredient in our working practice is to engage together. There is never a clear boundary between a philological, philosophical or contextual discussion and mathematical reasoning or discussion of ray optics. Scientists need to feel free to question accepted translations and to suggest new ones. Humanities scholars need to know that they are welcome to challenge the kinematic interpretations or optical references and speculation advanced by the scientists.

At the same time as appreciating the tenuous threads on which our experience of the past depends, learning to listen to ancient voices also involves an appreciation of the sophistication of the intellectual achievements of former ages. This is not an easy task. Especially for scholars of the modern period, the linear narratives of human progress cling all too persistently. Intellectual progress makes autobiographical sense: I know more now than I did when

a child. So, sadly, the accidental (or purposeful) patronising of past thinkers as 'child-like' in their knowledge is quite common. The team has had to work hard at the challenging task of taking the past seriously, and a past thinker as an intellectual equal, or superior.

Practice: lessons for interdisciplinary research

National and international interest about how to support effective interdisciplinary research has increased markedly over the last ten years. Partly recognising that none of the greatest global challenges that face us will find an answer within a single academic discipline, yet also realising that intellectual isolation is detrimental to any of them, there has been a clutch of reports commissioned by governments, funders and other institutions. I was fortunate to be asked to represent the Royal Society on a working party set up by the British Academy on the present and future state of interdisciplinary research in the UK, which reported in 2016. The experience with the Ordered Universe project helped overcome an initial fear that no early career researchers should be encouraged to engage outside their core subjects until they had built a reputation within them. Some intellectual energy spent more widely has clear and tangible benefits if a few key principles are followed. Here are a few that have served us particularly well, including the younger members within the team:

- *The importance of open and honest questions*. No-one enters a project requiring participation of at least three disciplines with any chance of possessing more than a superficial acquaintance of subject-matters outside their primary area of interest. Mutually recommended reading can help to get the team started, but without asking questions in the open the vital cross-disciplinary learning will never take place. Our experience has been that participants are made to feel very much more comfortable with that permission and encouragement to be open and honest in their questions.
- *Trespassers will be welcomed*. Interdisciplinary projects can sometimes be imagined as occasions at which each participant provides expertise from his or her own background, but never beyond it. While our disciplinary perspectives constitute our predominant contributions, it is important that they do not impede the intellectual confidence to range into new intellectual spheres. We have found the need for humanities scholars to suggest scientific ideas from their perspectives. The scientists must feel welcome to suggest fresh translations of the Latin, informed by the mathematical or geometrical insights they bring. A question asked from a non-specialist, though not non-expert, base, if listened to properly, will frequently generate thoughtful reflection that provokes more and deeper questions.
- *An environment for learning*. We will never become experts in each others' disciplines, but we must learn enough to understand the languages, concepts and a coarse-grained understanding of our knowledge-worlds. This leads to a culture within the group that values sharing, educating and inspiring. If listened to properly, the process is self-fuelling. There's nothing more rewarding than working with an attentive audience or an expert teacher, and the humility required by constant learning also generates an openness to fresh ideas that belongs at the heart of any academic project.
- *Focus matters*. Conversation between our different subjects alone does not sustain an interdisciplinary discourse. A material object on which to concentrate is equally necessary. For the Ordered Universe project, the text of the treatise under current scrutiny provides this focal point. It is in front of all of us continually and provides the start and end point for discussion, however widely we roam in-between (into the deeper background of the sources, back-tracing of a philosophical concept, or the physics and psychology of colour perception).
- *Creating and sustaining the culture*. The project has a regular core team of researchers, but also welcomes new participants each time we address a new treatise. New participants bring fresh perspectives and re-invigorate responses to the material (the project has welcomed over 150 at the last count). Both old and new participants benefit from the reminder of commitment to common thinking, to extend from disciplinary knowledge and

experience to inter-disciplinary methodologies and results. Having created a culture of mutual listening, it is vital that it should be sustained and challenged.

Creative collaboration

Most recently, the project has attracted the attention and engagement of a number of partners working in the creative arts. Sculptor and artist Alexandra Carr has been working on a series of pieces that draw on the treatises examined so far. Collaboration with projectionist Ross Ashton for the Durham Lumière Festival 2015 produced the sound- and light-show 'World machine', fusing research from the Ordered Universe with the galaxy-modelling project from Durham's Institute of Computational Cosmology. We are also working with the National Glass Centre, University of Sunderland and with glass artists Cate Watkinson and Colin Rennie to explore Grosseteste's treatises in glass sculpture. Figure 3 shows the scientific figure that maps, as Grosseteste says we might do in the *De iride*, all possible rainbow colours into a three-dimensional colour space, together with Colin Rennie's glass sculpture inspired by the work, displayed in a dedicated exhibition in spring 2018 of glass works inspired by the project.

These collaborations follow a similar pattern to our academic meetings and the artists are regularly invited to participate in the collaborative reading sessions. Meeting and working together provides explanation and context, as well as inspiration, for the artists, and wider perspectives for the science and medieval teams. We have not developed a particular theory of such creative engagement; the focus is, as always through the project, placed on the treatises as the beginning and the end of our reflections.

The whole experience of creating this eight-century connection has been a joy and delight. Not only has it demonstrated how superficial the 'two cultures' narrative really is and how much the humanities and sciences have in common, but it has also exemplified in the most striking way possible that great intellects of the past have always something fresh to speak in our present. This goes for science as well as for philosophy, theology or ethics. The

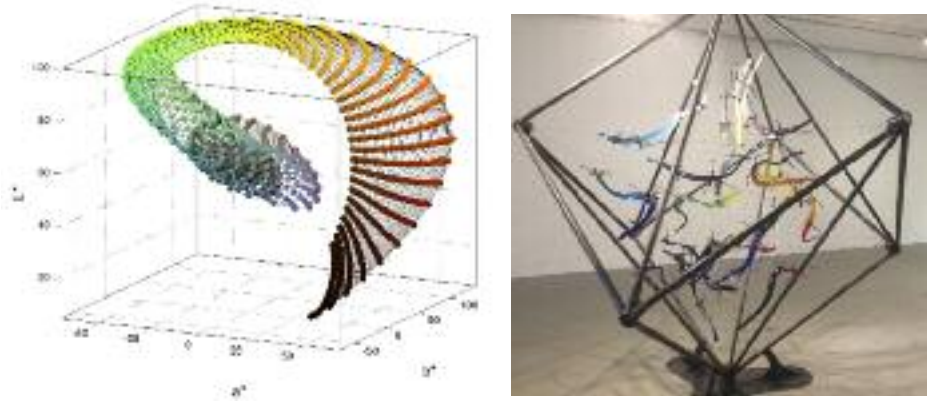


Figure 3 (a) and (b). Mathematical (3a, courtesy Professor Hannah Smithson) and artistic (3b, courtesy Colin Rennie) representations of the mapping of rainbow colours into three-dimensional colour space, inspired by Robert Grosseteste's text De iride

Ordered Universe project also reminds us that when we recover a vision of the unity of knowledge and adopt a readiness to learn from each other and from the past, the academy turns naturally outward and engages others in the community in new and creative ways. I like to think that the bishop of Lincoln would be happy.

Tom McLeish (1980), *Fellow (1988–89)*

*Attention in the Anthropocene**

I

Without a doubt, the most remarkable consequence of the recent proposal to name our current geological epoch the Anthropocene is the philosophical inquiry it has yielded. For what is at stake in the 'epoch of the human' is not, as would first appear, the task of exposing the scandal of human exploitation of planetary resources over the past century (though it is this too) but to expose, as scandalous, the very nature of human agency as such. The Anthropocene tells a story about causality, of how human beings have caused the

* A version of this piece was given in a talk to Fellows on 23 January 2018. A longer version will appear in *Political Geology: Active Stratigraphies and the Making of Life*, eds Abam Bobbette and Amy Donovan (London: Palgrave Macmillan, forthcoming)

Earth's atmospheric composition to change. That human beings have been instrumental in causing climate change few would now deny, yet attempts to account for how this causality is distributed repeatedly fail. As critics are beginning to realise, to claim that the guilt is collective, applying to humanity as a species, is absurd, for in developing nations many are without substantial carbon footprints and even in the developed world the day-to-day activities of the average citizen will have a vanishingly small effect on the planet as such. Yet it would be equally absurd to claim that the responsibility rests only with the few, for the situation is now more complex than that and perhaps has always been so. Whether or not an individual is materially responsible for the increase of carbon emissions all are, today, implicated in a planetary situation and contribute to its acceleration simply by being alive and so putting a strain on the planet's resources. This is bad news, since it means that everyone is, after all, part of the problem. But it is also good news, since by the same reasoning everyone is, by definition, part of the solution. It is this general solution – its structure and logic – that I want to think through in what follows.

For us of the Anthropocene, the hardest knock has been the realisation that our role, far from being reducible to a clear set of events (what did we do?), is entangled with such hard-to-define factors as thoughts and intentions (how did we imagine this was possible?). For the climate to change it was necessary that many people at many different times wanted to divert certain chemicals from their cycles, even if the motivations to do so were unrelated to climate change. Thus Paul Crutzen, who in 2000 popularised the term 'Anthropocene', points to the importance of consciousness when considering the forces that shape the planet. In an important article, 'The Anthropocene: conceptual and historical perspectives' (2011), Crutzen and his co-authors cite the Russian geochemist Vladimir Vernandsky:

> We see a more and more pronounced influence of consciousness and collective human reason upon geochemical processes. Man [sic] has introduced into the planet's surface a new form of effect upon the exchange of atoms.

Vernandsky, writing in 1924, connected consciousness exclusively with human beings, and Crutzen repeats the sentiment when using the noun *anthropos*, 'man' or 'human', to form the concept 'Anthropocene'. Yet what the Anthropocene shows is that there is no hard line to be drawn between human 'culture' and environmental 'nature'. In the Anthropocene, consciousness and its agency are not restricted to the 'human'; consciousness is planetary. Put differently, in the Anthropocene mindspace has become planetspace, and this recognition challenges not only how we think about the repercussions of our thoughts and actions, but also how we think about the dichotomies (culture-nature, human-non-human) that still subtend the politics of the planet.

For both Vernandsky and Crutzen, what makes the geochemical effect of human consciousness in the twentieth century so staggering and 'new' is its magnitude, which they consider, rightly, to be unprecedented. While it is possible to argue that the Anthropocene should be calculated from the point when human beings invented fire or began farming on a large scale, in no other centuries than the twentieth and twenty-first has the impact of human activity on the physiology of the planet been more noticeable or significant. But while the effect of human agency is unprecedented, the idea that human agency could have repercussions on the environment is not. As Michael Northcott argues in *A Political Theology of Climate Change* (2014), the notion that an apparently immaterial thing like consciousness could produce a material effect on the environment is ancient know-how, if not the most ancient expertise of all. One would be hard-pressed to find any traditional culture or sacred text that did not argue for some connection between the human and the humus from which it was made. In the flood narrative, for instance, evil thoughts and behaviour are punished with a drowned world in which only the righteous survive. In the Hebrew bible, the welfare of the Israelites depends on their maintaining a good rapport with the land; when they do not, disaster strikes. Of course, myths like these will often exaggerate the scale of what Vernandsky called the 'effect' of human consciousness on geochemical processes, as well as the

proximity between agent and cause. Nonetheless, the basic insight that myths convey remains the same as that presented by the new metaphor of the Anthropocene. No less than myth or religion, climatology shows that how we think about the environment has repercussions far beyond thoughts. Indeed, the Anthropocene is its own kind of theology, its own mythic retelling of the world.

II

To think about the agency of consciousness in planetary terms demands a considerable shift in awareness, precipitating a new way of life. The story told by the Anthropocene is thus one of epistemological and spiritual conversion, what the ancients called *metanoia*. Conversion means that we change while the world remains the same. So how do we change? To take seriously the epoch of the human is to kick back against several centuries of Cartesian anthropology in which mind, substantially different from body, is thought to have nothing at all to do with matter. For many pre-modern philosophers, by contrast, consciousness was considered an emergent property of matter. The Anthropocene suggests a retrieval of such pre-modern cosmologies, as it does also a careful study of emergence in the evolutionary philosophies of thinkers like Henri Bergson, A N Whitehead and Gilles Deleuze. Two philosophies much discussed at present, Stoicism and Bergsonism, are a good example of the sort of conversion that is becoming native to the Anthropocene. Though distinct in many respects, the Stoics and Bergson agree on what they take to be the emergent nature of mind. For both, mind is not a separate substance but an aspect of matter contracted at a certain high pitch of 'tension', what the Stoics called *tonos* and Bergson 'psychic tension' or simply 'tension'. In Bergson's opinion, when Stoic philosophers wrote about something having a nature or form they were referring not to a separate, free-floating essence but to the invisible tension that holds all the particles of a thing in place and gives it a distinctive appearance. In Stoic ontology, the unique tension of a thing is known as its 'habit' (*hexis*) or holding power. Humans have habits, but so too do inanimate things like logs and rocks. Though each

thing is thought to be distinct by virtue of its habitual tension, tension by definition (as Heraclitus suggested when he compared cosmic tension to the tautness of a lyre-string (Fragment 51)) was not thought to be static but changeable, and so habitual tension or 'tuning' (to continue Heraclitus' musical metaphor) too could change. In this way of thinking a habit can change involuntarily, as when we lose a limb and have to attune or habituate ourselves to the ground in a new way, or can be changed voluntarily, as when we decide to learn how to climb a mountain and have to attune ourselves to rock in a new way.

The concept of habit as a kind of tuning is vital to the Anthropocene because it shows how consciousness can make things happen, even when it looks as though it is having no direct impact on the planet. As Timothy Morton has argued in *Being Ecological* (2018), to think ecologically about the planet is to learn how to think about causality as actions that are indirect as well as direct, as something more than just things bumping into each other. Of course, such ways of thinking about causality seem curious today when many philosophers (such as Bertrand Russell) have preferred to think about causality in the narrow sense of efficient or direct causation: the same mechanistic account of reality favoured by Descartes and Hume. Yet evolutionary biology, to which Bergson's philosophy is deeply indebted (and which Stoicism anticipates in several regards), changed all of this. Like the Stoics observing that nature was not fixed but formed through habits, the evolutionary synthesis recognises as causally efficient not only the direct impact of genetic inheritance but also the indirect effect of repeated actions and habits.

How does this indirect causality work? One explanation, suggested by cognitive neuroscience, takes as its starting point the phenomenon of attention. In a study lead by Michael Posner, *Mechanisms of White Matter Changes Induced by Meditation* (2012), diffusion tensor imaging was used to observe the effects of meditation on the brain. It was found that when subjects engaged in a programme of daily attention (in this case, a form of mindfulness practice), white matter – the fatty substance that allows signals to travel through the central nervous system – increased in volume.

The same effects were found when subjects acquired a new skill: the repeated periods of attentive concentration required by the process of learning created a surge in the volume of white matter. For our purposes, what is extraordinary and significant about this discovery is the deep convergence between 'mind' and 'matter' to which it points. In fact, diffusion tensor imaging shows what both ancient philosophy and evolutionary biology have always suspected: that there is between consciousness – mental attitudes, ways of looking at the world – and organic tissue a positive feedback loop. From an evolutionary perspective we might say that mind and matter reinforce one another mutually in a finely balanced dance of give-and-take: the organism selecting for attention because it needs white matter to expand its awareness and skills; attention in turn re-shaping the organism by allowing it to adapt to new environments and tasks.

We are all creatures of attention, created by and through attention. In Morton's Heideggerian phrase, the way habits affect – and effect – things is by an 'attunement' toward the environment. 'Attunement', a word with the same root as 'attention', shares with 'tension' the meaning of 'stretching towards' or 'inclining oneself'. In practical terms, attunement is a kind of adaptation or indirect causation. It takes effect, but gradually and over time. In our example of habituating oneself to rock in new ways, neither the one-legged person nor the rock climber could have become proficient at their skill immediately. In their respective ways they had to tune into – give their attention – to the ground or to the rock in a certain way for a certain period of time. We cannot point to a specific day when the one-legged person mastered the skill of walking or when the amateur scrambler became a climber. Such adaptations happen almost imperceptibly, through an accumulation of repeated actions that eventually produce new skill and knowledge. And still they happen. Only once habits have been established can one say that they have achieved something. Then they are causative, even though the mode of causation is not direct. It is this mode of indirect causation that is so important for the Anthropocene. Quite literally it connects present-day humans to what J G Ballard described in *The Drowned World* (1962) as the 'deep

time' of an organism's past. But it also, simultaneously, projects human actions far into the future. The time of attention is deep but also lofty: sky-scraper-high. Thinking about causation as attention not only means thinking about the ways in which what we do today is tuned into events that happened millions of years before the appearance of *homo sapiens*. It also means thinking about ways in which what we do today is tuned into events that will happen millions of years after *homo sapiens* has disappeared from the planet. There's every reason, then, to pay attention.

But as a response to climate change, how viable is attention in practice? It seems that the most important feature of attention for the Anthropocene is its plasticity, or the fact that attention's causality is indistinguishable from its adaptive power: in a sense, attention is the adaptive power of the organism. This is helpful, because it indicates that attention is not static but mobile, and moreover that it can be increased and directed through conscious effort. As a habit, attention is a skill we can improve and work on. In his popular best-seller, *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder* (2005), Richard Louv diagnosed Western consumerism provocatively as a culture suffering from a nature-deficit disorder. This diagnosis, a variation on attention-deficit disorder, suggests that lack of care for the environment is the direct result of a lack of attention given to the environment. The cure implied by the diagnosis – increased attention – agrees with what we have seen regarding attention's role in the organism. It also suggests that the cure is not difficult to come by. Though directing attention to the environment may be hard work for one who has grown accustomed to distraction, paying attention as such requires no special tools. As Morton writes, again in *Being Ecological*, the problem with climate change is not that it is difficult to solve. If anything, because we are the tools, the solution is 'too easy'.

One might object that if a solution to climate change is easy in principle while remaining difficult in practice it is merely idle speculation, yet the scale of the problem indicates that the opposite is true. Were the solution not easy in principle – were it not a question of something everyone (and everything) could do, of earthly 'nature' as such – attention would not be a solution planetary in

scope and general in efficacy. It is precisely the easiness of the method that makes it practicable and true.

III

Considered as the principle of agency in the Anthropocene, what precisely is attention? We might define attention as a way of looking at the world with concentration and deliberate effort. As such, attention has been claimed by both philosophy and science as a foundational method, attention being a key word in the *Meditations* of Descartes and the essays of Condillac. However, when attention is used in the Anthropocene it is characterised not only by concentration and effort, but also by care, what Donna Haraway summarised so well in a recent piece as the ecological imperative to 'make kin' with non-human entities. The reason why Louv, for instance, wants his readers to pay more attention to the environment is because he hopes they will then be more likely to care about and for the environment. Once again it is a case of attention generating a positive feedback loop. The habit of attending to the environment becomes second nature, or rather, transforms and extends nature, since the more attention one gives to the environment the better adapted one then becomes to it, adaptation here being not only mental but physical, white matter increasing as the habit of paying attention is practised and repeated.

That attention, an apparently neutral activity, should be inseparable from moral vision is an idea that appears frequently in the descriptions of the practice that we find in the literature of spiritual exercise and mystical prayer. In *The Loving Flame of Love* (1591) John of the Cross famously described meditation as an 'amorous attention': '[the meditators] should conduct themselves passively …, without efforts of their own but with the simple, loving awareness, as when opening one's eyes in loving attention (*atención amorosa*)'. In his T*reatise on the Love of God* (1616), Francis de Sales writes similarly of meditation that it is a way of learning to love what one looks at: 'Sometimes we consider a thing attentively to learn its causes, its effects, its qualities; and this thought is named study … But when we think of divine things, not to learn, but to make

ourselves love them, this is called meditating, and the exercise, Meditation.' In the 1960s Thomas Merton, the Catholic mystic and student of ecology, for this reason argued that environmentalism should be thought of as a spiritual exercise. As models for environmentalism Merton looked to writers such as John of the Cross but also to earlier Christian mystics such as the Desert Fathers. He was especially interested in the latter's practice of *physike theoria*, a daily 'contemplation of nature' that formed part of the regimen of a religious ascetic. Several environmental writers have followed Merton's example, using early Christian forms of spiritual exercise as the starting point for rethinking the ethics of climate change. The basic idea in these studies is similar to that argued by Louv. Care for the planet begins by cultivating attention towards it, and the closest analogy to this attention is the devotional attitude of a spiritual adept.

In the literature of spiritual exercise, attention is usually presented as a form of love. To present it in this way is to imply that attention has a purpose beyond the mere effort of directing the gaze. When considering attention in the Anthropocene such presentations are important, because the 'epoch of the human' describes a time in which we can no longer afford to look at the world without caring about it. But love requires a response from the thing loved, and the environment is often seen as something inert and passive that may be cared for, but which will not return the feeling. This presents the environmentalist with a problem, for it implies that there is something tedious and pointless about giving attention to the environment. This is where the model of spiritual prayer is useful, because what it describes is attention received from something which, just like the environment, is evidently non-human – or better, more-than-human (God) – and yet elicits a human response. For the one who prays, attending to God in prayer is to be attended to by God, but God does not speak in human language and remains mysteriously withdrawn from human modes of communication. Nonetheless, the literature of mystical prayer will refer to a presence felt and to a more-than-human communication.

It is the same when a person gives his or her attention to other non-human and more-than-human things, such as rabbits or cabbages. A child presented with a rabbit will be rewarded with attentiveness if it first pays attention to the animal, and yet the animal does not speak the same language as the child. Similarly, cabbages that are allowed room to grow will reward a gardener with a large yield of succulent leaves, and yet cabbages will never articulate their thoughts to the gardener. The cabbage, though apparently inanimate, 'responds' to the gardener in the same way that God responds to the meditator and that, in the wild, a plant would respond to the 'attentiveness' of the sun and rain. In this sense, rabbits and cabbages share some things in common with humans but some things also with God, which is why ecology and spirituality have always been, unconsciously or not, twinned concepts.

To say that ecology is 'spiritual' implies that it gestures to the supernatural and extraordinary. Yet attention is an ordinary ability and the example of Merton and others indicates that in relation to ecology the spiritual is more about practising ordinary ways of looking at the world and less about donning new spectacles through which to see it. In *A Political Theology of Climate Change* Northcott thus describes what is at stake in terms similar to those I have been using, connecting the theological part of climate change with the ability to set 'intentions', 'intention' being another word with the same root as attention:

> What must we do to get to a viable future? The suggestion is that humanity needs to form clear intentions about desired planetary climate states, and then use the instruments of earth system engineering, climate modelling and global meteorological governance to bring these about …

For Northcott, while science and technology are necessary in order to mitigate the worst effects of climate change, any future science will only be as good as the intentions with which it was selected and developed. Intentions, in turn, are formed by our way of looking at the world, and the first task of a political theology of climate change is to cultivate ways of doing so that will attend to long-term as well as to short-term effects. On a day-to-day level,

unless we get into the habit of looking twice at the objects we use (where did they come from? do we need them? etc), we are unlikely to modify our habits of consumption. If we do not modify these habits, there will be no change whatsoever to the planetary situation and the respite, if any, provided by the technical solutions of geoengineering will be temporary. As Northcott points out, this is why, despite taxing carbon, national reductions of fossil-fuel consumption in developed nations such as the UK or Sweden have no effect on climate change so long as goods produced using fossil fuels continue to be imported from developing nations that are not yet included in the emission-reduction scheme.

This paradox, which for Northcott lies at the heart of the Anthropocene, has been named after the nineteenth-century economist William Jevons, who noted that it was a confusion of ideas to suppose that 'the economic use of fuel is equivalent to a diminished consumption'. In Jevons' prescient words, 'the very contrary is the truth'.

Because the only safe way of addressing climate change is by scrutinising our way of looking at the world before we scrutinise the tools with which we aim to transform it, science in the Anthropocene is never distinct from ethics. Insofar as attention is the first tool of change, the skill and techne needed belongs to us, with the habit-training that Peter Sloterdijk, in a recent response to the planetary situation, has named 'anthropotechnics'. In the Anthropocene, anthropotechnics commences with the cultivation of good habits, that is, by setting intentions and then working out which technological aids will help (or thwart) those intentions. In light of Jevons' paradox and the work on ourselves that needs to be done while taking responsibility for our causal entanglement with the planet, it seems that any turn away from the spiritual foundation of such exercise is hazardous, if not fatal. Then talk of 'consciousness', 'attunement', 'attention' and 'intentionality' can no longer be dismissed as the spiritual lingo of a few hippies, mystics and environmentalists: it is an earthly necessity; a matter, really, of life and mass-extinction.

Simone Kotva, *Fellow*

*The People's Republic of China Latest Leadership and Foreign Policy Changes**

* This is a version of a paper given in a talk to Fellows on 1 May 2018

With a vast population of over 1.36 billion inhabitants and an impressive economic growth, the People's Republic of China has become one of the key actors on the international stage. In 1978 – when China started the opening-up policy and a vast program of economic reform – it ranked tenth in GDP with $US 148 billion. Thirty-seven years later it has now reached second place with GDP of $US 9.2 trillion. The supremacy achieved by China has obliged current generations of policy-makers and stake-holders to include it in their internal planning and world-wide strategy.

The complex decision-making process of its internal power structure and unique social fabric resulting from 3000 years of history and the shear diversity of its people makes China a very interesting country to study and learn from. Concealed behind a curtain of discretion and hidden by obvious linguistic and cultural differences, nowadays it shows many faces to its Western counterparts, often leading to un-founded misunderstandings. The enigmatic dynamics of China's inner core makes its future moves difficult to predict.

The inner core values of the People's Republic of China

Despite its international relevance, the undeniable appeal of its huge market and increasing interests and better knowledge of governments and multinationals world-wide, China remains an enigmatic country remarkably difficult to understand if one looks at it with Western glasses. This difficulty lies in the difference of logic between the West and the East, where the West indulges in hypothetico-deductive manicheist and often static logic compared with the East, having refined 3000 years of evolving logic based on the dialectic movement between immanence and transcendence.

In mathematical terms if A expresses a proposal and A* its opposite, Western logic would make A+A*=0 (a zero-sum game) and Eastern logic would make A+A*=multiple As (a win-win solution). In practical terms, Western logic gives the Western world the Judeo-Christian principle of right and wrong or black and white with very few shades of grey. Eastern logic gives China the Confucian principle of a harmonious society with various shades of grey and no clear-cut colours of white or black.

One can easily understand why Western minds have difficulty in comprehending Eastern logic, particularly the West feels ethnocentric after conquering the world (in every sense of the word) over the past 500 years. However, it is important to recognise that Eastern logic understands the Western one. Therefore Chinese leaders have been more able to negotiate for the long-term than their Western counterparts. This is particularly true in the area of international relations, where the People's Republic of China has been using its flexible negotiating skills to implement effectively the five principles of peaceful coexistence on almost every agenda promoted by the United Nations since the Second World War. Notwithstanding the self-proclaimed China experts, the only way for Western minds better to understand Chinese logic is to visit the country and live with its people at every level of the society, in order to know better the real China and to be more critical and selective on the still frequent misunderstandings promulgated by the Western press. Without understanding the Chinese it is not possible to understand the inner core of its fabric, let alone the dynamism of its power structure.

China has witnessed an incredible economic growth since the reform and opening-up policy started in 1978, subsequently boosted by the principle of 'Market socialism with Chinese characteristics' introduced since 1982. Successes following this wave of economic and social reforms are obvious. Major macro-economic developments in terms of growth of GDP makes China now the engine of growth for Asia-Pacific economies. Less often reported is that China has also experienced major micro-economic achievements, with now more than 95 Chinese firms, among them 40

state-owned enterprises, listed in Fortune 500, with Sinopec topping the list. China has also succeeded great achievements in terms of better standard of living (*xiaokang*) for the Chinese farmers – particularly following the start of continuing land reform (*tudi gaige*) – and the people at large (*laobaixing*). Chinese leaders have basically used with an intimate cultural intelligence the Yang Qi model promoted by the novelist Lu Xun, which explains how to take the best from the West and leave the rest.

Reform of the economy and society does not mean reform of politics in China. Despite these changes, the Chinese Communist Party (CPC) is still in the driving seat and is likely to remain so for a very long time. The reason for such an immutable political structure lies in the inner core meaning of the CPC for the Chinese people. It has an historical meaning for them: the party assures the stability of the country (dear to Confucius) and is returning to them their pride after many centuries of foreign humiliation (particularly during the late Qing Dynasty). The CPC strengthened China so it is the only country giving alternative ideas since the fall of the Soviet Union and ensures stable economic development so that it will eventually become the engine of growth for the world at large. Last century we used to speak about the 'American dream'. Now replaced by the 'Chinese dream', the world is looking at alternative ways and many foreigners are moving to China as a new and better place to live and prosper. (The concept of the 'China dream' was first proposed at the CPC Central Party School in 2001 by this author and publicly acclaimed during his speech at the Mexico APEC summit in 2002). The economic and social achievements in the past 30 years would not have been possible without the CPC driving the country in the right direction.

Fundamentally China's inner core mechanism can be simply understood when drawing a triangle with three driving concepts in its corners: society, politics and economics (without any order of precedence between them). Each is supported by three different values, all equally important and co-existing in a more or less harmonious way:

- politics is based on the values of 'people, party and army'
- economics is based on the values of 'reform, development and opening-up'
- society is based on the values of 'Confucianism, Marxism and "SanMin Zhouyi" (originally proposed by Sun Yatsen as people's universal values of life, democracy and human rights)'.

The current ideology of the CPC encompasses all these values. Despite its immutable structure, their ideology is not static like the Soviet Union's communist party used to be (and probably the ultimate reason for its dissolution). It has evolved from Marxist-Leninist ideals to Mao Zedong's thoughts, Deng Xiaoping's theory of market socialism, Jiang Zemin's concept of three, Hu Jintao's harmonious society, and now Xi Jinping's Chinese dream. Each of these ideologies is complementary and can be understood by using these triangles of concepts and values. Therefore, understanding the inner core of China cannot be achieved without describing the structure of the CPC.

Leadership structure: the CPC and other institutions

Often misinterpreted by foreign observers, the CPC cannot be compared with other communist parties in the Soviet Union or in Europe. With more than 86.7 million members, it is now the largest party in the world. The founding national congress was held in July 1921 in Shanghai. The core issue tackled by each congress ever since has been, and still remains, to find solutions to the *San Nong Wenti* (farmers, agriculture and countryside). Its core values, even after the Second World War, have always been radically different from those of the Soviets. This difference also comes from the unique history of the CPC: many of its leaders were educated or worked in Europe before the Second World War, particularly Deng Xiaoping, who was part of a group of Chinese youngsters invited to work in France by Joseph Faisant MP, then chairman of the French parliamentary committee for the reconstruction of France shortly after the First World War (Joseph Faisant was my French great-grand-uncle). These youngsters also included students such

as Zhou Enlai, who studied law in Paris. Most of them were influenced by the ideological vision of the then French radical-socialist party, whose ideals could be best described as a vegetable called 'The radish', ie red outside (socialist), white inside (traditional values) and always very close to the butter plate (extra care was given to a balanced economic growth in order to achieve a well-off society'; the butter plate is best reflected in Deng Xiaoping's pragmatic policies).

Joining the CPC is not an easy affair in comparison with similar Western organisations, since it is not possible simply to ask to enrol. A prospective member must first be proposed and, if accepted, he or she will have to undergo at least a year's probation before becoming a fully fledged member. This training includes teamwork and courses on CPC rules and history, with exams. This entry mechanism rules out those who cannot give proof of complete faith in the party's leadership. Youth organisations at schools and universities are the best avenue for recruitment. By the end of 2011 the number of CPC members under 35 years old was over 21 million: 25 per cent of the total membership. During the 20 years of my professorship at People's University of China (RenDa) from 1999 to 2018, I have observed the increasing number of students joining the party; the popularity of the CPC nowadays has never been as high since the end of the Second World War. Many youngsters join through the largest mass-membership organisation in the country: the Communist Youth League (CYL), which currently has more than 89 million members and became famous as President Hu Jintao used to be the CYL's general secretary along with other leaders who originated from the CLY leadership ranks, including the current premier Li Keqiang and former state vice-president Li Yuanchao.

The structure of the CPC is based on a geographical and pyramidic bottom-up organisation, starting at village level, then county, municipality or district, municipal and finally provincial, including the four largest cities of Shanghai, Beijing, Tianjin and Chongqing. Lower levels are represented at higher ones. The party committee usually has 12 plus members. Every five years local party

congresses are held to elect committee members and its highest official: the party secretary, seconded by a couple of deputy party secretaries. Similarly at national level a national party congress of more than 2000 members is held every five years to elect a central committee of about 200 members – the most powerful body of China – and members of the Central Commission for Discipline Inspection (CCDI). The central committee at its first plenary session elects the general secretary every five years, a politburo of more than 20 members, and a standing committee (PSC) usually of under ten members ranked by the number of votes each leader received (nine members at the sixteenth CPC congress under Secretary Hu Jintao and seven members at the eighteenth and nineteenth CPC congresses under Secretary Xi Jinping). It also elects the secretariat, the Central Military Commission (CMC) and finally the leadership of the CCDI. Since 2013 the central committee has also elected the members of the newly built National Security Commission.

The central committee meets every autumn in a plenary session. The politburo and standing committee can meet whenever they are convened by the general secretary. The CPC follows the principle of 'democratic centralism', in Chairman Mao's words, based on a dialectic combination between an inner-party democratic voting system (bottom-up 'freedom') and a centralised decision-making process (top-down 'discipline'). However centralised it is supposed to be, the CPC decision-making process has in reality been based on the principle of collective leadership, much credited to Deng Xiaoping in order to avert the excesses of the Cultural Revolution, strongly enforced until Hu Jintao but apparently less so under Xi Jinping. Collective leadership means that no one person makes a decision at the top of the hierarchy of the party: all top-level decisions are achieved through a consensus-building process carried out within specific central units such as the central commissions (for agriculture, enterprise etc) or central leading groups (for foreign affairs, economic and financial affairs, Hong Kong and Macao affairs etc).

The central committee is also supported by its own huge administration, which is supervised by the secretariat and arranged

in departments such as the general office (administrative work); the organisation department (overseeing the appointment of party cadres); the propaganda department (overseeing the media); the international department (overseeing relationships with other foreign political parties); the united front department (overseeing China's non-communist parties and mass organisations); and the central party school (a think-tank to discuss ideological variations and training ground of the future cadres). In 2012, CPC membership was 31 per cent farmers, nine per cent workers, 23 per cent professionals, 18 per cent pensioners, eight per cent government staff, three per cent students and eight per cent 'others'. Recently, each CPC national congress has seen its membership change by around 50 per cent, which helps the current goal of rejuvenating the CPC elite.

Like any Western democracies, political coalitions ('bang's) exist within the CPC and they become obvious before every even-numbered (fourteenth, sixteenth, eighteenth etc) national congress that elects the new general secretary (as the person elected usually serves two terms). While it is generally accepted that once elected all CPC members must follow the core of the collective leadership, struggles usually happen beforehand and alliances between political coalitions determine who is elected to the top post. These negotiations have traditionally been held behind closed doors at the seaside resort of Bedaihe, where Chairman Mao used to love swimming, and party elders informally discuss the succession with the newcomers. Such political coalitions can be geographically based such as the Hunan bang (led by Mao), the Sichuan bang (led by Deng) or the Shanghai bang (led by Jiang), but can also can be based on organisations allowed by the CPC to structure themselves in geographical networks such as the Tuanpai (using the network of the CLY led by Hu); the All-China Women Federation (Fulian) and, most powerful of all, the People's Liberation Army (PLA).

In China, holding a geographical network means power, and this has been true throughout the past 3000 years. The PLA has always played a distinctive role. It was founded on 1 August 1927 shortly after the end of the first Kuomintang-Communist alliance that advanced the careers of future leaders such as Zhu De (future

PLA chief-of-staff) and Zhou Enlai (future premier). Despite the fact that the 'Party holds the gun' (the CPC must control the PLA) it has been saved by the Chinese Red Army on several occasions. The PLA is truly a people's army and can often be seen rescuing Chinese citizens from major catastrophic events such as the Sichuan earthquake or flood of 1998, when more than one million soldiers were mobilised. In peace-time the CPC is predominant, but in time of war or instability there exists an unspoken rule that the PLA leadership takes over to protect the Chinese nation and its leaders. Indeed the CPC general secretary does not become the leader before being appointed chairman of the Central Military Commission. President Jiang Zemin, for instance, kept the CMC top post for one year after the sixteenth CPC congress as a clear intention of retaining power after stepping down from leadership of the CPC in a similar way to what Deng Xiaoping himself did with more success.

The executive side of the Chinese government is embodied by the state council, which is composed of a premier and four vice-premiers as well as several state counsellors including a secretary-general. The state council controls several commissions and ministries; Premier Zhu Rongji started to reduce the number of them in a major administrative reform. A similar pyramidic and geographical structure can be found at local levels with provincial, municipal, district and county governments headed by governors, mayors, district heads and county heads. However, power still lies within the underlying CPC structure. For instance a governor would typically be deputy party secretary of the provincial party committee and would need approval from that committee for most major decisions. The executive is thus the representation of power and the CPC is the real power behind it. The State Asset Supervision Administration Commission (SASAC) has an odd situation, being placed under the state council but effectively answering to the party. SASAC is the direct line of control of more than 100 of the most powerful Chinese state-owned enterprises, to ensure they follow capitalist competitive practices so as to satisfy the vested interest of the CPC, their stakeholder, thus using capitalist means to satisfy socialist ends.

On 1 October 1949, when Chairman Mao declared the establishment of the People's Republic of China, its constitution was approved by the first plenary session of a newly created consultative parliament called the CPPCC: the China People's Political Consultative Conference. I have had the extraordinary opportunity to be the first-ever European specially invited member of Changchun CPPCC (2001–05) and observer member of the foreign affairs sub-committee of Shanghai CPPCC (2009–12). Membership of the CPPCC has a maximum of one-third from the CPC. Others represent a wide range of Chinese society: democratic parties, mass organisations, Chinese living overseas, as well as religious, academic and business organisations. CPPCC sits once a year shortly before the plenary session of the National People's Congress (NPC), which is the lower legislative house of parliament constituted mostly of CPC members. This legislative house has recently become more powerful as the two functions of chairman of the People's Congress and party secretary at provincial and municipal levels are held by one official. At national level the NPC is also the institution that elects the state president, a function combined since the fourteenth CPC congress with that of CPC general secretary, as well as that of CMC chairman.

Changes after the nineteenth CPC Congress

The bodies that sit at the top of the Communist Party saw their make-up change significantly on 25 October 2017 at the end of the nineteenth CPC congress, which had started on 18 October with a three-an-half hour speech by Xi Jinping. The turnover of party leaders at the nineteenth congress was one of the largest in CPC history. Five of the seven members of the Politbureau Standing Committee are newcomers. Within the politburo, 15 of 25 seats belong to first-time members.

General secretary and CPC ideology

It was not surprising that Xi Jinping, 64 years old, was re-elected for another term as general secretary, the party's top position. There had been a strong indication that Xi would stay on for more than

two terms because of his early promotion in October 2016 as core leader of the CPC. In addition, officials born after 1960 such as Hu Chunhua, Chen Min'er and Ding Xuexiang were not promoted to the Politburo Standing Committee. For the first time since Jiang Zemin, no clear-cut successor had been hand-picked by former leaders ahead of appointment as CPC general secretary, signalling a break from the system of leadership change with designated successors. It is worth noting that the offices where real power resides – the CPC general secretary and the CMC chairman – are not term-limited. The medium-term goal of Xi Jinping is to reinforce the principle of democratic centralism. At the eighteenth CPC congress a strong anti-corruption movement had already reinforced the top-down discipline without any sign of weakness during the past five years.

The real revolutionary outcome of the nineteenth CPC congress has been the establishment of an agenda for a true inner party democracy, where the next general secretary will eventually, for the first time ever, be voted for by the CPC central committee (and indirectly by all CPC members) instead of being hand-picked by former leaders and then co-opted to the top position. The challenge of this inner-party democratic 'revolution' dear to Deng Xiaoping is how to interpret Xi Jinping's 'socialism with Chinese characteristics for a new era' now firmly embedded in the CPC charter. The success of this process will come to light at the twentieth CPC congress and, if confirmed, such a merit-based succession system will assure the ultimate long-term legitimacy of the party. Externally, the nineteenth CPC congress looks like an autocratic power grab by Xi Jinping. In reality the party needs a more assertive leader to unite all factions around its core leader. Indeed, over the past five years factional struggles have appeared as a direct consequence of the anti-corruption movement. And even as paramount leader Xi Jinping will still need to negotiate with the CPC's ultimate check – the People's Liberation Army – which emerged from the nineteenth CPC congress as an even stronger counter-power. The reasoning behind publicly minimising this inner-party democratic revolution lies on the desire to test the new

succession system before fully implementing it. Therefore no representative of foreign media was invited to attend the full congress and the Chinese media received the clear directive to stay laconic on this subject.

Politburo Standing Committee

The Politburo Standing Committee (PSC) is traditionally considered to be the highest level of power in the Communist Party. Since 2002, selection of its membership has become increasingly institutionalised. Age, in particular, has played a significant role. Since the sixteenth party congress in 2002, all standing committee members who reach the age of 68 in the year of a congress are required to retire. No-one has broken this convention between 2002 and 2017. It is no wonder, therefore, that five out of the seven members of the eighteenth Politburo Standing Committee relinquished their seats: Zhang Dejiang (born 1946), Yu Zhengsheng (born 1945), Liu Yunshan (born 1947), Wang Qishan (born 1948) and Zhang Gaoli (born 1946).

Since the 1980s, age-based retirement has become increasingly rigid, codified in a plethora of party regulations dictating promotion and retirement rules based on age. For instance, party rules stipulate that minister-level officials must leave active executive positions by the age of 65, and vice-minister-level officials must retire when they are 60. It is worthwhile pointing out, however, that at the PSC level, age-based restrictions are based on convention, not written rules.

The new PSC members are:

- Xi Jinping (born 1953): stays as CPC general secretary and CMC chairman. The objective of his second mandate is to keep the country as stable as possible during the process of reinforcing the principle of democratic centralism at every level of the party. The success of this will be displayed to the Chinese people and the world on 1 July 2021 at the celebration of 100 years of CPC achievements
- Li Keqiang (born 1955): stays a member of PSC, ranking second. The objective of his second mandate will be to fully support Xi Jinping's agenda of maintaining stability, and in keeping the principle of a 'new normal' in the management of the state council, with less emphasis on the 'market' side and more emphasis on bringing China to the level of a moderately prosperous society by 2021
- Li Zhanshu (born 1950): he was Xi's chief-of-staff, as head of the CPC central committee general office in the first term of his administration. Li and Xi became friends between 1983 and 1985, when they were party chiefs of neighbouring counties in Hebei in their early 30s
- Wang Yang (born 1955): he was party chief of Chongqing and Guangdong provinces, has been a politburo member since 2007 and is seen as one of the more 'liberal' members of the ruling elite in terms of economic reforms
- Wang Huning (born 1955): named first secretary of CPCCC secretariat and the new ideology tsar. He is a former head of the CPC central policy research office. He has been an adviser to three state presidents, including Xi Jinping for his thoughts. He played a significant role in drafting Jiang Zemin's 'Theory of three represents' and Hu Jintao's 'Scientific theory of development'; the three are now written into the party's charter
- Zhao Leji (born 1957): named new chairman of the CCDI. He is former head of the CPC central committee organisation department. He is the youngest of the group of seven, giving him a good chance of staying in play at the twentieth CPC congress. He built his career in the less-developed western province of Qinghai
- Han Zheng (born 1954): former party chief of Shanghai. He was the city's youngest mayor and has spent his entire career there. He is generally seen as having a strong technocratic record.

The thirteenth CPPCC/NPC congresses (Liang Hui)

It is not surprising that CPC members fill all the important positions in the state government. What is surprising – unique – is the long delay between the turnover of the party leadership and the reshuffling of these state positions. By convention, the CPC chooses its top leadership every five years at the CPC congress that

takes place in the autumn (in this case October 2017). Not until the following spring (ie March 2018) did the National People's Congress (NPC) elect a new crop of state leaders: the state president, vice-president and councillors, including the prime minister and four vice-premiers.

The China People's Political Consultative Conference (CPPCC) starts before the NPC. On 15 March at the closing session of the thirteenth CPPCC congress Wang Yang (a new member of the PSC) was elected the new chairman of the national committee of the CPPCC. A resolution on an amendment to the CPPCC charter was passed in a move widely thought to represent an important chapter in the development of democracy in China. The scope of the CPPCC's nature and tasks was further defined giving it increased power, and the idea of 'socialist consultative democracy' was added to the charter. Xi Jinping's thought was also incorporated into the amendment as a guiding theory of the CPPCC.

On the first day of the NPC congress, 11 March 2018, the following amendments to the constitution were passed:

- Removal of the state presidential and vice-presidential term limits (allowing the president to stay in charge as long as necessary in order to supervise the inner-party democratic reform)
- Inclusion of Xi Jinping's thought as well as other ideas of his such as a 'new development model', 'social and ecological civilization', 'harmonious and beautiful', 'modern and powerful (country)', 'achieve the rejuvenation of the Chinese nation', 'shared destiny of mankind' and 'promote core socialist values'
- Addition of a line stating that the party's leadership is 'the most essential feature of socialism with Chinese characteristics'
- Approval of the National Supervisory Commission with subordinate units at the provincial, city and county levels, thus expanding the anti-corruption drive (traditionally handled by CCDI) beyond CPC members and giving it a much wider scope than state-owned enterprises or party and state organisations. Investigations can now include any individuals or private firms as well as wholly foreign enterprises.

On 14 March, the restructuring of the state council into 26 ministerial-level agencies was approved. This reshuffle of duties has the effect of decreasing the concentration of power of certain entities. Three days later, Xi Jinping was reappointed state president and Wang Qishan (not a member of the politburo because of the age limit) was elected as state vice-president. On 18 March Li Keqiang was reelected prime minister. The same day the members of the State Central Military Commission (in theory a different body from the CPC Central Military Commission) were endorsed, with the same two vice-chairmen: General Xu Xiliang and General Zhang Youxia (both members of CPC politburo) and General Wei Fenghe, General Li Zuocheng, General Miao Hua and General Zhang Shengmin. Yang Xiaodu was elected to the new National Supervisory Commission (he is also deputy secretary of CPC Central Commission for Discipline Inspection (CCDI). Zhou Qiang was elected president of the Supreme People's Court, and Zhang Jun was elected procurator-general of the Supreme People's Procuratorate. At the last session on 20 March Li Zhanshu (PSC member) was elected chairman of NPC national committee, strengthening Xi Jinping's grip on all aspects of institutional powers.

New world order with Chinese characteristics

Since 2008 China has been taking a more assertive approach to regional affairs. The party is concerned by domestic unrest and by the US pivot towards Asia. The latter might become critical, particularly in the case of Taiwan where early encirclement is now openly talked about as an option for the next decade if the island continues to receive military help from the US. Therefore, the government needs to deal with policies that often conflict, such as creating a stable regional environment and satisfying nationalist ambitions. China has pursued a regional policy characterised by economic engagement and assertiveness in the maritime domain (an oil rig near the Xisha Islands and an air defence identification zone in the East China Sea, mainly to cover the Diaoyu Islands). China has regionally promoted 'Asia for Asians' even speaking of 'Oriental civilisation' at forums as early as 2010.

In terms of regional security integration, the Shanghai Cooperation Organisation (SCO), established in June 2001 by China, Russia and some Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan) is a kind of China-led NATO without Article 5 and now extending membership to India and Pakistan. The overt common goal between SCO members is to fight the threat of Islamist extremism: China in Xinjiang; Russia in Chechnya; the Central Asian members in the Ferghana Valley and borders with Afghanistan. The appeal of the SCO to India and Pakistan is obvious, as NATO's withdrawal from Afghanistan creates uncertainties in the region. India is being courted both by China and the USA, but SCO membership would be a useful way for India to push its independent foreign policy. Meanwhile, the USA was rebuffed when it asked to join the SCO as an observer, and the Trump administration is now responding by trying to build the Quad Group (US, Japan, Australia and India) as an Asian version of NATO. Another increasingly important China-led organisation is the Conference on Interaction and Confidence-Building Measures in Asia (CICA), consisting of 26 mostly Asian members, aiming to promote regional peace and security. During its fourth summit in Shanghai in May 2014, Xi Jinping proposed a new concept for security in the region to cool down continuing disputes with Vietnam and the Philippines, based on the model of 'major country relations' in three aspects: no confrontation, mutual respect and win-win progress.

In terms of regional economic integration, China is promoting several alternative economic institutions such as the Asian Infrastructure Investment Bank (AIIB), a China-led alternative to the US-led World Bank, as well as the Japan-led Asian Development Bank, created in October 2014 with 20 countries and a fund of $US 100 billion. China can leverage its considerable influence over the AIIB to bolster its international image, particularly by strengthening its relationship with Asian developing countries to meet their need for infrastructure investment. In November 2014, Xi Jinping hosted the APEC summit, when 22 economies endorsed the creation of the China-led free trade area of Asia-Pacific (FTAAP). At this same summit, the Chinese president also outlined the vision

of a new Silk Road, based on Asia-Pacific land (the Silk Road Economic Belt) and maritime networks (the twenty-first century Maritime Silk Road) of industrial and financial infrastructure serving 40 per cent of the world's population. Since then China has committed to put $US 40 billion into the Silk Road fund for infrastructure and resources.

This new Silk Road is an economic extension of the SCO and is a practical manifestation of 'Economy means Security' for the current Chinese leadership. These developments in the Asia-Pacific region prove the need for more cooperation between China and the USA. The new China-led regional institutions, as well as older China-sponsored international fora such as BRICS [Brazil, Russia, India and China] are part of the architecture of the new world order of major power relations created by China's rise: something that can be described as the 'new world order with Chinese characteristics', or that Xi Jinping's 'Thoughts on socialism with Chinese characteristics for a new era' are now firmly embedded into the party charter following the nineteenth CPC congress.

Conclusion

Internally, Xi Jinping has reinforced the principle of democratic centralism dear to Chairman Mao. At the eighteenth CPC congress a stronger anti-corruption movement already reinforced the top-down discipline. The revolutionary outcome of the nineteenth CPC congress is the establishment of a true inner-party democracy where the next general secretary will, for the first time ever, be voted for by the central committee. The success of this process at the twentieth CPC congress will assure its ultimate long-term legitimacy.

Externally, Xi Jinping has promoted a new and more proactive and assertive foreign policy approach that is likely to mark his rule. His goal is to protect China's core interest in the world's inevitable move towards multipolarity. He has reaffirmed that China remains in a period of strategic opportunity (POSO) until at least 2021 (when the CPC marks its 100th anniversary), during which time China will enjoy a benign external security environment, allowing the leadership to focus on its internal peaceful development.

However, Xi's definition of POSO suggests a much more proactive approach than his predecessors, whereby China will seek to shape its contour through its growing power. Xi clearly has a sense of confidence in the inevitability and sustainability of China's rise. If successful, China will not only continue to be the engine of growth for Asia but also become the engine of growth for the world: the best groundwork for a long-lasting, peaceful world.

Jean Christophe Baron von Pfetten, *Bye Fellow*

The New Environment of Influence, the Holy Grail and Pandora's Box

After around 25 years working with NGOs in development and emergency programmes in Africa and Asia, I spent my first Christmas in almost a decade in the UK in 2004. I woke up on Boxing Day to see images of the Indian Ocean tsunami devastating towns, coastal communities and tourist resorts in Indonesia, Sri Lanka and Thailand. Public responses to the disaster were impressive. In Britain more donations were made more quickly to the Disaster Emergency Committee's tsunami appeal than to any previous appeal coordinated by the DEC. Yet at the same time there were around ten 'forgotten emergencies', mostly in Africa. Responses by the public and governments in high-income countries to these emergencies were a fraction of those to the tsunami. Why? What influenced people to respond to the tsunami and not to other crises?

This question developed into a broader question: how have the influences on people's every-day behaviours changed over the past few decades? This latter question was prompted by another contrast I came across in 2004. Earlier that year I had been to China, a quarter of a century after my first visits to Asia. I was struck by one difference in particular. In 1979, three years after

Mao's death, there were almost no adverts for private goods; the only public messages were exhortations to work for the public good. By 2004, the former had crowded out the latter; adverts and dozens of new influences were everywhere, many promoting high carbon, high calorie lifestyles. Between 1986–96 expenditure on marketing in China increased by over 1000 per cent. By 2008 advertising spending in China had grown to nearly $70 billion, with more than 80,000 advertising agencies employing over a million people. It is no coincidence that China has experienced one of the world's biggest increases in childhood obesity and also some of the world's highest levels of urban air pollution. I also saw large expansions in commercial marketing in other countries in Asia, but the increase in China was the most striking, given the contrast with Mao's China.

The expansion of marketing in developing countries in general has accompanied the emergence of 'new consumers' in these countries: between the early 1980s and 2000 almost one billion appeared, with a combined purchasing power equivalent to that of the US; their cumulative impact on the environment has been enormous.

An emerging pattern of influences underlying development

2004 was interesting in another respect: Facebook was launched. I was unaware of it at the time, but this innovation was a significant part of a pattern that emerged after several more years of trawling through the rapidly expanding bodies of research in the behavioural and related sciences in an attempt to answer these two questions. One way of viewing development, it seemed, was to frame it as involving increases in the number, variety and sophistication of influences on the behaviours of both individuals and organisations. These increases are illustrated by the contrast between the McDonalds-free zones in which villagers lived in China's inland areas in the 1970s, and the urban contexts, riddled with commercial influence methods, in which many of their children and grandchildren now work.

In the years after 2004, as I spent part of my time in Asia and part in Europe, while continuing to trawl through studies in the

behavioural and related sciences, several features of this 'behaviour-influence' framing gradually became apparent; five are outlined below. Together, they seemed to form a pattern underlying not only the forms of 'development' taking place in Asia; this pattern also appears to underlie a number of the crises that have occurred, or which have become more prominent, over the past two decades in countries around the world: for example, the current democratic crisis (briefly discussed below) in the UK, the US and various other countries.

One of these corollaries is that there have been, and continue to be, imbalances between the influences that encourage 'unsustainable behaviours' and those promoting the opposite, 'sustainable' behaviours. These imbalances appear to have increased with development.

'Unsustainable behaviours' can be grouped in various ways. Three of the most important groups are environmentally unsustainable behaviours (for example, unnecessarily generating greenhouse gases by driving short distances and through the use of several dozen household appliances), personally unsustainable behaviours (smoking, unhealthy diets, inadequate exercise); and financially unsustainable behaviours (spending too much and saving too little, borrowing at usurious rates of interest). Sustainable behaviours are the opposite of these; or, in the case of financial behaviours, they involve a balance between spending and saving; and borrowing that can be repaid without impoverishment.

Secondly, this increasing imbalance has largely emanated, directly or indirectly, from growth in commercial marketing. As development has proceeded, methods of commercial influence in middle- and low-income countries have increased in scale, scope and sophistication to much greater extents than those used by governments and NGOs. In this respect the pattern of development they are following mirrors that in high-income countries, where the former methods greatly 'out-influence' the latter. In the UK a few years ago, for every £1 spent annually on promoting healthy alcohol consumption, over £90 was spent on marketing by

the alcohol industry. Only a fraction of one per cent of every $1000 spent on marketing in the US is spent on public service announcements that promote sustainability issues. This pattern has been long-established in high-income countries, as Edward Bernays, the 'father of public relations', observed in in the 1920s: 'The conscious and intelligent manipulation of the organised habits and opinions of the masses is an important element in democratic society'.

Thirdly, this imbalance has been amplified in the last two decades by two sets of revolutions in the science and practice of influencing behaviour. The increasing use made by marketers of behavioural and related sciences (behavioural economics and neuromarketing, for instance), combined with the internet and the emergence of social media and smart-phones, has put the holy grail of marketing within the reach of large corporations: they can now both precisely target individual consumers and also do this on large scales. In everything we do, 'the marketing system touches our lives'. However, the holy grail of marketers in the private sector has been weaponised by various special interest groups, turning it into a Pandora's Box for the public and the public sector, one of various 'developments' further discussed below (as is the term 'developments').

Fourthly, but not quite finally, most people are largely unaware of these influences; it is this lack of awareness, or at least this very inadequate awareness, that helps account for the effectiveness of many of them? '[They] exert a lot of power over our behaviour, [but] our natural tendency is to vastly underestimate or completely ignore this power … We are pawns in a game whose forces we largely fail to comprehend' (Ariely, 2009). Ariely's observation now seems prescient, given what we now know of the influences operating in 2016 in the UK's EU referendum and in the US's presidential election; though what we now know about the influences operating in these events is still the tip of just one of a flotilla of enormous influence icebergs.

Increasing short-termism and self-interest, and growing inequality

Two related elements of unsustainable behaviours are, in most cases, their focus on self-interest and on the short-term; these elements characterise the behaviours of both individuals and organisations, especially (but not only) those in the private sector. Stiglitz comments that 'Corporations have gone (since around 1980) from serving all of their stakeholders – workers, shareholders and management – to serving only top management under the guise of enhancing "shareholder value"'. And increasing the market power of a few firms in key sectors has meant that competition has less sway. The result: short-sighted behaviour, under-investment in jobs, and low growth, higher prices and greater inequality in the future.

Stiglitz's observation reflects a comment by Alan Baker in his article in last year's edition of the Emmanuel *Magazine*: 'In recent decades, we seem to have focused on our rights as individuals and to have neglected our obligations as members of a community'. Stiglitz was referring to the US, but his point applies, to varying extents, to large corporations everywhere; this is a global trend.

The new environment of influence of the twenty-first century and special interest groups

Stigltz's observation also relates to the increasing influence of special interest groups: the fifth and final feature of what might be called the new 'environment of influence' of the twenty-first century. A relatively small number of special interest groups (mostly, but not only, businesses in, for example, the finance, fossil fuel, and food and beverages industries) are disproportionately involved in influencing policymakers to reduce or scrap regulations and taxes that they view as reducing their profits. Their many-faceted activities generally result in encouraging 'unsustainable behaviours', by impeding attempts to discourage them.

Special interest groups are a recurrent theme in Stiglitz's work, particularly on inequality. Their pervasive and often pernicious

influence is also highlighted in a 2016 book co-authored by two his fellow Nobel laureates, George Akerlof and Robert Shiller: *Phishing for Phools: The Economics of Manipulation and Deception*. Among the examples they cite in their chapter on 'Phishing in politics' is one that involved a return of at least $255 for every dollar spent on lobbying. This resulted from the lobbying of Congress by a coalition of 39 companies that generated tax savings for them – and, effectively, tax losses for the government and, by extension, for ordinary taxpayers – of $46 billion.

The new 'environment of influence' and behavioural crises

These features of the increasingly complex environment of influence that surrounds us also affected the behaviours of some of the key actors in the 2008 financial crisis, contributing to the crisis itself. At the base of the Ponzi pyramid that the complex system of subprime mortgages became, low-income house-buyers were 'manipulated and deceived' (to borrow the subtitle of Akerlof and Shiller's 2016 book) by finance corporations to take out loans they could not afford. At a higher level, financial market traders were manipulated and deceived into buying mortgage-backed securities that were not what they seemed.

At the top of the Ponzi pyramid, those responsible for overseeing financial markets were seemingly unaware of the role of the assumptions influencing their activities in generating the crisis. Alan Greenspan was the chairman of the US Federal Reserve in the two decades preceding the 2008 crisis (1997–2006). During testimony to a Congressional committee investigating the origins of the crisis, he admitted: 'I made a mistake in presuming … that the self-interests of organisations, specifically banks and others, were such that they were best capable of protecting their own shareholders … Something which ... looked to be … a critical pillar to market competition and free markets, did break down.'

Around the same time, two other enormous 'behavioural crises' became more prominent, converging and interacting: climate change and 'globesity'. Both are by-products of the various

commercial forms of influence inherent in the economic and political systems that have generated the patterns of unsustainable economic growth now seen around the world; both result from myriad influences on the behaviours of individuals and organisations, which disproportionately promote unsustainable behaviours; and, in each case, people are generally unaware of these influences, at least at the time they are being influenced.

Behavioural crises largely result from the aggregated and accumulated consequences of the myriad behaviours of people and organisations (behaviours of the latter include the influences on policy-makers and regulators exercised by special interest groups). Examples include climate change and various environmental crises; the 'globesity' pandemic and its associated lifestyle diseases; and the 2007–08 financial crisis. They correspond to the three groups of unsustainable behaviours outlined above.

The term 'special interest group(s)' has generally been used in the context of the influences that large businesses exercise on politicians and regulators. In 1936, in the aftermath of the 1929 financial crash, Roosevelt commented that 'We know now that Government by organised money is just as dangerous as Government by organized mob'. Eisenhower famously referred to the 'military-industrial complex' when he warned in 1960 that, 'In ... government, we must guard against the acquisition of unwarranted influence … whether sought or unsought'. His successors during and following the 2008 financial crash failed to act on Roosevelt's observation, because, as Stigltiz has pointed out, they were disproportionately influenced by 'organised money'.

However, in the half-century following Eisenhower's warning, special interest groups and their lobbyists, exercising often well-targeted methods of influence to achieve their aims, have increased in number and variety and, arguably, in effectiveness (as with the National Rifle Association (NRA) in the US). The two sets of revolutions referred to above have, more recently, amplified this trend. Mancur Olson, in his 1965 classic *The Logic of Collective Action*, defined special interest group(s) 'in a way that foreshadowed their growth: the smaller "special interest groups"

can often defeat the large groups … which are normally supposed to prevail in a democracy – They often triumph over the numerically superior forces in the … large groups because the former are generally organised and active while the latter are normally unorganised and inactive': a prescient description, in view of the events of 2016.

Groups whose activities can be viewed through 'behaviour-influence' lenses include secular and faith-based extremists, foreign intelligence agencies, pressure groups such as the NRA and those involved in the abortion debate; and also political parties, civil society organisations and campaigning organisations.

A generic 'behaviour-influence' perspective

The pattern outlined above suggests that a 'behaviour-influence' perspective on 'development' would be useful, to take into account the newly emerging 'environment of influence'. This would involve framing development in terms of the large increases in the number, variety and sophistication of influences, and of the special interest groups exercising these influences, over the past four or five decades.

Rather than replacing current definitions and understandings of 'development', this would allow it to be linked with development processes everywhere. Most major problems and crises (and opportunities), regardless of the GDP of the country concerned, involve the asymmetric exercise of various forms of influence by one or more special interest groups. Examples include the current political crises in the US, the UK and a number of other countries, although the combination of special interest groups involved is particular to each country. This kind of framing allows smaller-scale problems and large-scale crises (and opportunities) to be analysed in terms of the various influences exercised by the different actors they involve.

The narrower concept of 'economic growth' could be addressed similarly. As Stiglitz and others have pointed out, the pattern of economic growth that has taken place since around 1980

has been characterised by increasing economic inequality within countries (though inequality between countries has fallen, largely because of economic growth in China and certain other emerging markets). A behaviour-influence framework could be used to describe this period in terms of disproportionate increases in those influences promoting unsustainable behaviours and, by extension, of increases in behaviours focused disproportionately on the short-term and on individual and organisational self-interest. This would help to broaden debates about the processes underling these trends (which are common to a wide range of 'behavioural crises' in all countries, regardless of their GDP). This 'broadening' is discussed below.

These kinds of framings would provide an additional perspective on, for example, the Facebook/Cambridge Analytica scandal, which illustrates several of the 'behaviour-influence' features of development outlined above. This is briefly discussed at the end of this article.

The changing pattern of risks, and risk rebounds

This 'behaviour-influence' perspective can be used to focus on the details of the processes underlying problems and crises and opportunities; it can also be used to take a broader, longer-term view of economic growth and development, trends and events. In the last 200 or so years, starvation has been virtually eliminated in high-income countries, as has widespread destitution; and the mortality rates from infectious diseases have been greatly reduced. In comparison with the seven decades before 1946, there have been few wars in Europe in the seven decades since then. The war in former Yugoslavia in the 1990s, Russia's invasion of Georgia in 2008 and the current conflict in Ukraine have inflicted death and suffering on the people caught up in them, as do all conflicts, but the people affected were vastly outnumbered by those killed, injured, traumatised and displaced in the pre-1946 series of conflicts in Europe. Until quite recently, the death tolls from 'natural' disasters seemed to be remorselessly declining in high-income countries, too.

These trends fostered the implicit illusion that the pattern of economic development in these countries had somehow permanently

reduced the biggest risks that previously confronted pre-industrial societies, an illusion illustrated by Thomas Friedman's comment (in the 1990s) that no two countries with McDonald's outlets have ever gone to war with each other. Twenty years ago, in the decade of 'delusional optimism', when 'the end of history' had apparently arrived, three of the four horsemen of the apocalypse had seemingly been pushed away from high-income countries. However, they continued to ravage various low-income countries, where they appeared to be part of the landscape, which partly (though only partly) accounts for the continued existence in some of these countries of long-running crises involving poverty, disease, conflict and 'natural' disasters.

The contrast between these 'forgotten' emergencies and the sudden appearance of a new kind of disaster, the tsunami, on the Boxing-Day TV screens of people in the 'North' illustrated some of the factors that influence why we respond to certain risks and not to others. Paul Slovic, the world's leading authority on risk perception, points out that 'System 1 thinking (associated with rapid, 'automatic' responses) evolved to protect individuals and their small family and community groups from present, visible, immediate dangers'. The images of the tsunami were dramatic: they were indeed present, visible and almost immediate; moreover, it affected many thousands of tourists, who were the same in almost every respect as the Boxing Day TV-viewers. Relatives of several well-known people died.

Slovic goes on to say that: 'System 1, however, did not evolve to help us to respond to distant, mass murder', which helps explain the lack of response in high-income countries to the mass killings in Syria, Myanmar, South Sudan and the DRC. Nor did it evolve to help us to respond effectively to the greatest challenges currently facing humanity, which are not present, visible, immediate dangers. Rather, to varying degrees, they are characterised by one or more of '4D' attributes – delayed, diffuse, distant or different – so our attention is not captured in the way it was by the tsunami. In relation to the individuals and organisations whose behaviours helped generate them, these challenges are variously delayed or distant or diffused, or they affect people who are different from the

causal agents (or who are different from those whose relative wealth means that they could help finance some of the solutions to them). This helps explain why *leishmaniasis*, discussed by Jonathan Hollins in the previous edition of the Emmanuel *Magazine*, has been classified by the World Health Organisation as a 'Neglected Tropical Disease'.

'The death of one man is a tragedy, the death of millions is a statistic' is a comment that is misattributed to Stalin, but it captures an additional set of factors that help explain why responses to these challenges have almost always been inadequate. Slovic points out that feelings are crucial in motivating responses to risks and crises, but our capacity to feel is limited: it tends to be limited to small numbers, particularly where people are concerned. As numbers rise, 'psychic numbing' rapidly sets in: feelings are numbed when aid agencies or politicians talk in terms of the statistics that are often disproportionately used to describe disasters and major issues.

Climate change is the quintessential '4D' crisis or, at least, it is for most of the time, until wildfires, storms, floods and winter freezes briefly focus our attention on their ultimate causes; this is the relevance of the answer to the first question I posed, which set me off on my literature trawl. It also helps explain why some other crises, such as 'globesity' and the pandemics of lifestyle diseases, have proved so intractable. Some of the '4D' attributes (and psychic numbing) also apply to the 2008 financial crisis: it erupted several years after sub-prime mortgages and mortgage-backed securities were invented; toxic financial products were diffused within financial markets (as 'weapons of mass financial destruction', to quote Warren Buffett); and the adverse impacts of the crisis have been disproportionately experienced by people who are different from and distant from those who were responsible for it, virtually none of whom were subsequently sanctioned.

Some of the '4D' attributes also help to explain the intractability of these crises in terms of the special interest groups involved in them. For average voters or consumers, these groups are distant and different from them, their activities are diffused and invisible, and the consequence of their activities are delayed or, at least, they

take time to become apparent. Consequently, most people are unaware of the nature and extent of the pervasive and pernicious influences that many of them exercise.

The answers to the second question (how have the influences on people's everyday behaviours changed over the past few decades?) are also needed, to help us understand the influences that underlie the succession of varied 'behavioural crises' that have disfigured the start of the twenty-first century, and which unfolded and sometimes interacted in the years following the tsunami. Three have been mentioned, but each is more accurately described as a cluster of 'behavioural crises' characterised by some or all of the five features outlined above. These cover climate change, weather-related disasters and various environmental cries (air and plastic pollution, species extinction, rainforest destruction, habitat loss); obesity and lifestyle diseases; and financial and economic crises (corporate crises, tax avoidance, personal debt). Inequalities of various kinds (wealth, income, gender-based, racial, health, education, for instance) comprise a fourth cluster of behavioural crises (which, arguably, are involved in various ways and to varying extents in all the other crises).

An important feature of behavioural crises is that they, or elements of them, interact. One or more inequalities, for example, underlie almost all the other crises. Various forms of abuse, violence and exploitation comprise another cluster of behavioural crises. Viewing them in terms of the varied influences they involve helps understand them and can also facilitate the design of appropriate interventions. Gang-related violence, for example, has increased in the UK in recent years. The approach developed by Scotland's pioneering Violence Reduction Unit, which is now being considered as an appropriate approach for adoption in London, has at its core a series of social influence interventions. It involves targeting known gang members and asking other members of their community, including bereaved mothers, to explain the ripple effects of violence. It offers young men a way out through education, training and mentoring; importantly, delivered by someone with similar experience of street violence.

Terrorism can also be framed as a behavioural crisis. Scott Atran is an American anthropologist who has studied terrorism and conflicts in various countries over the past three decades. His research suggests that social and other behavioural influences are often much more important than the ideologies that terrorists are framed in terms of: these influences are current, visible (in the form of people) and nearby, whereas ideologies are more diffuse and the benefits they claim to deliver are usually delayed. Atran maintains that terrorists are first and foremost social beings, influenced by social connections operating through groups and social networks.

The holy grail and Pandora's Box

I finished writing this article at the end of July, just as the House of Commons' Digital, Culture, Media & Sport Committee published its first interim report in its disinformation and 'fake news' inquiry. Correspondingly, I will end this article with a few interim comments on the report and on the crisis it addresses. Disinformation and 'fake news' involve several features of behavioural crises in general: influences on the behaviours of myriad people by special interest groups, influences of which the participants in the referendum and the people and organisations overseeing the referendum were unaware before and during the critical time of influence.

These influences were, to use a term coined by Robert Cialdini, a leading authority on social influence, 'weapons of automatic influence'. The special interest groups deploying them exploited both of the two sets of revolutions (in the science and practice of behaviour-influence) referred to above. They thereby effectively weaponised the marketers' holy grail and, to complete a bag of mixed metaphors, turned them into a Pandora's Box: the political variant of Buffet's weapons of mass financial destruction. Consequently, some of the special interest groups campaigning for Brexit were able to send targeted messages on large scales, and to change them rapidly when circumstances changed: for example, following the murder of Jo Cox.

Not only were those who took part in the two major voting events of 2016 unaware of many of these influences and how they were exercised by special interest groups, but their representatives were, too: hearings in the US Congress and in the UK's House of Commons only took place well over a year after the votes had been counted.

The UK committee's recommendations have been widely praised. They all seem necessary; but, at first glance, they also seem insufficient. The introduction to the report states that 'In this inquiry, we have studied the spread of false, misleading, and persuasive content, and the ways in which malign players, whether automated or human, or both together, distort what is true in order to create influence, to intimidate, to make money, or to influence political elections'.

The 'democratic crisis' to which the report refers is another example of a 'behavioural' crisis, acknowledged by the committee in their use of the term 'influence' twice in this introduction. However, the term is not mentioned again. This is, in many ways, a new kind of democratic crisis. In attempting to understand new or unfamiliar things, analogies can be helpful or misleading or both. The analogy which comes to my mind is that of a viral crisis; the term 'epidemic of fake news' has been used so many times as to constitute an epidemic in its own right. Viral epidemics can't be defeated by regulations alone, though some regulations help.

In a recent book, *The End of Epidemics: The Looming Threat to Humanity and How to Stop It*, Jonathan Quick outlines a seven-point plan to reduce this particular threat. The last step requires: 'a committed public to keep the bell ringing between the outbreaks … the momentum lapses when the headlines go away and people are back to school and back to work'. To address effectively the 'epidemic of fake news' and other behavioural crises, one of the most important requirements is both simple and difficult. Since inadequate awareness about how people are influenced, and about who is influencing whom in what ways, for what purposes, underlies all these crises, increasing these kinds of awareness is crucial. This is, of course, easy to say; it is difficult to achieve.

Perhaps one small step would be to refer to Facebook as Frankenbook. This is, after all, the two-hundredth anniversary of the publication of Mary Shelley's prophetic classic; a lack of awareness about certain fundamental aspects of human nature, coupled with hubris on the part of the creature's creator, were central to the tragedy.

Christopher Eldridge (1972)

Brewer Hall Poetry Prize

The Brewer Hall Prize, endowed in honour of Derek Brewer by Andrew Hall (1972), was won in 2017 by Lottie Tucker (2015). We print here a selection of her winning poems.

Pfeilstorch

When it came,
I spanned a span too long
And crumpled from the course.
I planned to go, as I have always done,
And meet her at her door.
Stretch my neck and—

[mama here you go, I have it here
we are mothers you are mama
(speak it low)
It was heavy but I lumbered on].

One migrant: bolted.
You lowly said:

it's cold here. It's cold and
this is where you sleep

[burning wood is burning throat is burning I am burning]

And changed me for a specimen.
One upstrung widthless stork: landed at the last,
Not dropping when she called—

my baby o my baby o where did my baby go

[because she did not say it low because she spoke it wrong because she lurched me because]

No. Better to have landed in the lowland.
I could have turned about a post, returned a bout and though
Not swaddled, not her own, have shown her my own young.
Better not unbundled in that burning room,
Unshouldered struck and slung
About your neck or clinging
Further north than I belong.

This is where you sleep:
You will winter in the sea-mud,
Or curl wingless in the barn.

Mama I have crossed that strait and I have gone
From shore to shore to shore.

Pelican

This was a sound I knew. Rain had tapped like that
had mucked the dust; miles-gone, now silted, now a sand.
It had not rained in weeks.

The thing that tapped was throat-pocketed
standing at the window, looking in.

Far inland and too far come for fish so this
parch pecked red run water out
this is how they nurse their young:

They rest.
Head to chest they rest and then
Red-tipped they rip and rip and rip and feed.

Except
it did not dip its beak to gash it did not bleed
as we were told it would.

It was desert enough that we fed where we could
so we tapped it ourselves. No half-starved fledglings we
(This was the tap of a talented hand.)
not boys nor men but something like a man
and hungry like a man.

Loose from the rap of that undipped bill,
we unparented our tongues we
lapped our fill in that dry waste,
(now dipping back)
unspooled the thing and wrung it.

Once we might have said

there's a portent in that bird
tapping at the window like that
looking in.

But we had not eaten in so long; were clumsy for it.

John Hughes Prize

The John Hughes Prize for 2018 was awarded to Ranana Dine (2017). The prize was set up in memory of the Revd Dr John Hughes (2001), whose PhD was supervised by Professor Catherine Pickstock. John was Dean of Jesus College when he died tragically in a car crash in 2014. The prize, endowed from a legacy John left the college, is for an essay in theological discourse. Rana has written the following article based on her prize-winning submission.

Jewish Crucifixions, Christian Tragedy: Chagall's White Crucifixion and Christian Tragic Theology

Without a personal interview it is impossible to know exactly why Marc Chagall's famous painting, *The White Crucifixion*,[1] is Pope Francis' favourite work of art, or for that matter, what Chagall had in mind as he painted the canvas. The 1938 painting, which now belongs to the collection of the Art Institute in Chicago, depicts a central crucified 'Jewish Jesus' hanging on the cross, as various vignettes of anti-semitic violence take place around him. Everything is dominated by an overpowering tone of white, unusual for Chagall, known as a master of colour. And it is a matter of wonder, at least in the Jewish press, that the pope would so favour a work by a Jewish artist that depicts a 'Jewish Jesus' surrounded by these scenes of antisemitism. And yet the artwork captivates its viewers, compelling many through its restrained use of colour and the uncomfortable mixture of Christian iconography

[1] M Chagall, *The White Crucifixion*. Oil on canvas, 1938. http://www.artic.edu/aic/collections/artwork/59426

with Jewish suffering. Extensive art-historical scholarship has been carried out on the work, particularly by Ziva Avishai-Maisels, locating the painting in Holocaust-era artistic trends as well as within Chagall's own biography[2]. But by moving away from straightforward art history, it is possible to offer a theological reading of this painting that puts the canvas in conversation with tragic theory and Christian theology. Although I cannot promise to answer the opening query regarding the pope's enthusiasm for Chagall's painting, deep theological engagement with *The White Crucifixion* can lead to a paradoxical understanding of Jesus' innocence and yet culpability in anti-semitism. Visually and theologically engaging with Chagall's *White Crucifixion* may allow us to imagine Christian tragedy and 'see' the complex theological questions opened up by the Holocaust.

But first, some context. Chagall's painting was created in 1938, on the eve of the Holocaust, when news of anti-semitic events, including *kristtalnacht*, was reported in the press. And it was in this period, during the Holocaust and the years that immediately followed, that Jewish artists turned repeatedly to the image of Jesus' crucifixion in order to depict their own artistic response to the unfolding genocide. Jewish artists, including Mark Rothko, Max Weber and Abraham Rattner, all depicted the crucifixion, with Chagall, known as the pre-eminent 'Jewish artist', particularly turning to the symbolism of the cross during and after the Second World War. Art historians have picked up on this recurrent use of the cross, and many Jewish viewers find the appropriation of the crucifixion by their co-religionists uncomfortable and unsettling. Why did so many Jewish artists feel the need to employ this Christian symbol in their Holocaust-era work?

One answer to this question is that Jewish artists felt that their religion lacked a potent enough tragic symbol to express fully the depths of their suffering and apprehension over the unfolding destruction of European Jewry. Artists like Chagall felt that Judaism lacked an indigenous symbol of tragedy as potent as the cross.

[2] Z Amishai-Maisels, 'Chagall's "White Crucifixion."', *Art Institute of Chicago Museum Studies*, **17, no. 2** (1991), 139–81. Accessed 24 January 2017. doi:10.2307/4101588

Indeed, theorists of tragedy have pointed out that Judaism supposedly lacks a sense of the wholly tragic: George Steiner, for example, declared that 'tragedy is alien to the Judaic sense of the world'[3]. The stories and poetry of the bible supposedly operate within a world ultimately governed by justice and a 'fair God', rendering indigenous Jewish symbols impotent when compared with the unfolding calamity of the Holocaust.

But the crucifixion itself is a significant choice for a symbol of Jewish tragedy, if only because it is not necessarily a tragic event in Christian theology. To return to Steiner, Christianity, and the central event of the crucifixion, cannot be seen as wholly tragic since 'absolute' tragedy 'is immune to hope'[4]. In traditional Christian teaching, however, Christ's sacrifice and death on the cross is meant to provide universal salvation, creating a culture that lacks the ability to engage with the ambiguity and suffering of true tragedy. Any image of the crucifixion implies the eventual resurrection, denying a fully tragic finale. Mid-twentieth-century theologians who felt a need to respond to the horrors of the Holocaust, in particular English theologian Donald MacKinnon, tried to turn away from this traditional hopeful understanding of the cross. MacKinnon, although unable and unwilling to deny the resurrection – going so far as to call it 'the *prius* of [his] whole argument' – wished for Christian theology to move away from a focus on Jesus' triumph and instead to concentrate on the tragic consequences of his lived humanity and crucifixion, to realise that the resurrection was not the inevitable conclusion of the cross[5]. MacKinnon called on Christians to take seriously the notion of the tragic after the destruction wrought by the twentieth century – and particularly the calamity of the Holocaust – and made the tragedy of anti-semitism a major theme of his work. In 1972 he wrote:

> The events of the present century and in particular what happened in Germany between 1933 and 1945 rob any serious theologian of the remotest excuse for ignoring the tragic element

[3] G Steiner, *The Death of Tragedy*, New Haven: Yale University Press (1996), p.4

[4] G Steiner, '"Tragedy," Reconsidered' *New Literary History*, **35, no. 1** (13 April 2004), 1–15. Accessed 12 February 2017. doi:10.1353/nlh.2004.0024

[5] D M MacKinnon, *The Borderlands of Theology*, London: Lutterworth Press (1961), p. 95

> in Christianity. It was in the long Christian centuries and by the styles of persistent Christian behaviour that the ground was prepared for the acceptance of the holocaust of the Jewish people.[6]

For MacKinnon, Christ's humanity implies that his life was fraught with tragic consequences, since the act of living is by nature riven with unknown grievous contingencies and horrific possibilities. The most ordinary, and even the most moral, of human decisions have harrowing costs. Thus MacKinnon argues that the crucifixion, usually seen as leading only to Christ's victory, 'remains mysteriously and inescapably tragic' since Christ's incarnation requires that 'as he lived he was confronted with real choices, fraught, in consequence of the way in which he chose, with disaster as well as achievement in their train'[7]. Although MacKinnon maintains a theology of Christ's innocence, he believes that it is implicit in his incarnation that he made choices, choices that in some cases led to disaster and horror. Reading MacKinnon it is not hard to see how Jesus' choice to be crucified, rather than reveal himself as a saviour of the Jewish people in his own time, led the way to centuries of anti-semitism, eventually allowing for the Holocaust. Although Christ's response to the cross was 'unquestionably a victory', by not giving in to the temptations and not coming down from the cross, he rejected 'not only any attempt to achieve success by use of political power, but the subtler, arguably deadlier temptation of a bloodless victory whereby he might establish himself as the leader of a great spiritual revival', of the Jewish people[8]. By allowing himself to be crucified, rather than coming forward to save the Jewish people, Jesus in some way allowed for 'the intrusion of a theologically founded anti-semitism into the public prayer and private imaginations of generation of Christians'[9]. MacKinnon explicitly connects Jesus' willingness to be

6 D M MacKinnon, *The Problem of Metaphysics*, Cambridge: Cambridge University Press (1974), p. 130

7 D M MacKinnon, *Explorations in Theology* 5, London: SCM Press (1979), p. 194

8 D M MacKinnon, *Problem of Metaphysics*, p. 133

9 D M MacKinnon, 'Theology and tragedy', *Religious Studies*, **2, no. 2** (1967), 163–69, p. 168. Accessed 19 January 2017. http://www.jstor.org/stable/20004651

sacrificed, or in another light his 'abdication of responsibility for his people's welfare', to a Christian history of anti-semitism:

> It is at least arguable that [Jesus] had enough influence to achieve at least a little; but he seems to have preferred a road, which, if it led to the unmasking of human motives, also involved many of his contemporaries in a terrible guilt and provided inevitably an excuse for his followers in later years to fasten responsibility for the crucifixion upon the Jewish people and their descendants.[10]

So what does this mean for our painting, written before MacKinnon had published any of these words? Jewish artists who depicted the crucifixion in the wake of the Holocaust were able, as MacKinnon in some ways advocated, to strip the crucifixion of its hopeful symbolism and connect it to anti-semitism, all in a compelling visual manner. Jewish artists did not subscribe to the doctrine of Christ's resurrection and salvific gift, and were thus able to interpret the crucifixion as offering an absolute symbol of tragedy. For Chagall, Christ was no saviour; instead he 'symbolised the true type of the Jewish martyr', and so Chagall reported he 'painted and drew him in pictures about ghettos, surrounded by Jewish troubles, by Jewish mothers, running terrified with little children in their arms'[11]. The crucifixion represented the depths of oppression and violent anti-semitism, making it a symbol of the unjustified calamity that Chagall hoped would shake the Christian world awake to the tragedy unfolding for European Jews.

Chagall's crucifixion paintings from the period are thus bleak canvases that do not offer direct signs of divine salvation: Christ will not be resurrected, he will not save the suffering Jews. *The White Crucifixion* superimposes the image of a Jewish Jesus (wearing a Jewish prayer shawl) on the cross with contemporary images of Jewish destruction. Aaron Rosen, a scholar of Jewish art, offers a reading of the hopeless quality of the painting which is worth quoting here at length:

> The prospect of divine intercession is equally cloudy … what is ultimately illuminated is not so much the promise of redemption

10 D M MacKinnon, *The Borderlands of Theology*, London: Lutterworth Press (1961), p. 103

11 Chagall, quoted in A Rosen, *Imagining Jewish Art*, London: Legenda (2009), p. 25

> as the reality of suffering. This is not a Christian Christ whose suffering saves, or whose death expiates, sin. Chagall's Jesus is an innocent Jew, suffering without cause and without the certainty of resurrection ... the unmoored ladder further underscore[s] Jesus' abandonment by humanity, it also points to his abandonment by God.[12]

Chagall would continue to make crucifixion scenes after the war, including in paintings about Jewish rebirth, which one might assume use the crucifixion as a symbol of Jewish resurrection after the *Shoah*. Looking, however, at the painting *Liberation*[13], one sees that Christ here is not actually depicted as resurrected. Instead he continues to hang on the cross, although he has shrunk and been placed far off in the distant background. The tragedy of the destruction, with its lack of divine redemption and hope, remains, hovering in the distance, an ever-present memory, even as the Jewish people rebuild and thrive. These paintings do not offer a hopeful vision of the crucifixion; instead the cross has been stripped of its salvific message, becoming a symbol of the utter unjustified suffering of the Jewish people.

It is not easy to depict a paradox. But it is my contention that Chagall's *White Crucifixion* revels in the tension one can find within MacKinnon's theology. Chagall understood Jesus as serving as the prototypical Jewish martyr, innocent of the accusations shouted at him by his Christian persecutors. But Chagall also picked up on the use of the Jewish Jesus by Jewish artists to implicate Christianity in its history of anti-semtism, depicting Jesus as an innocent martyr while also using this Christian symbol to reproach the religion for its violent oppression of the Jews. Although the Christ figure in the *White Crucifixion* does not actively engage in the anti-semitic acts surrounding him, one can read his placid inaction as implicating him in the calamity that engulfs him. If Jesus is truly the son of God, why is he not saving the helpless Jews fleeing persecution? The Aramaic inscription above his head declares him 'King of the Jews': if he is the king, the anointed one, why does he not intervene?

[12] Ibid, p. 28

[13] M Chagall, *Liberation*. Oil on canvas, 1947–52. https://www.wikiart.org/en/marc-chagall/liberation-1952

He hangs instead superimposed above the suffering Jews, enlarged, the centre of attention and yet refusing to interact with those around him. The ladder next to the cross implies that if he truly wanted to come down from the cross he could, but instead he chooses his martyrdom. Much like the thought of MacKinnon, Jesus may not himself be an active agent of anti-semitism, but his death, understood for centuries as a victory, is very much a choice, a decision that has tragic consequences for his own people. Chagall, as a Jewish artist, is able to draw on a theological history of Christ's innocence while also seeing how the crucifixion led to the slaughter of his own people at the hands of the Nazis. Chagall painted a paradox: an innocent Jewish Christ, the quintessential Jewish martyr, who is yet refracted through a history of Christian anti-semitism that began with Jesus' inaction at the crucifixion.

I don't mean to argue that Chagall (or for that matter MacKinnon) offers any fulfilling answers to the theological questions raised by the Holocaust. But through contemplating the painting, it is possible to read it like a work of theology, finding meaning about the human relationship to suffering, tragedy, violence and God. I do not know if Pope Francis reads it this way, although I like to imagine that he finds in the work some theological resonance, something that speaks to his religious sensibility. For the more typical viewer, time spent with *The White Crucifixion* offers a chance to be confronted with the theological questions ripped open by the Holocaust. We can 'see' tragic theology, in all of its unsettling incompleteness, its open questions, in the face of Chagall's Jewish Jesus.

Ranana Dine 2011

Eclectic Emmanuel: Extracts from Evocations of Experience

Emmanuel is and always has been a society of talented individuals who collectively constitute the college at any particular date. Their experiences here shape their lives for better or worse as well as the lives of others and of Emma. The archivist welcomes the written recollections of members, since they will be the basic material from which future historians will be able to form a view of our times. Most contributions are not written for publication in the* Magazine*, nor are they of a length or general interest to such a large diverse contemporary readership. Nevertheless the Editor prints below some extracts from recent submissions which each in its own way gives a flavour of their critical analysis of what Emmanuel has meant and means to different individuals.

Emmanuel and Warkworth House[1]

In October 1921, I went up to Cambridge. I chose Emmanuel (you could choose in those days!) because my history master was an Emmanuel man. There were no links or contacts to guide me. The school had sent boys to Cambridge, but not in my time, so much of which coincided with war-time. The tradition was for boys to go to London University. I might have done so too had not my father worked out that London, with its higher cost of living and train fares, would be as expensive as Cambridge. Since he had to provide most of the money, Cambridge would be the better 'buy'.

In true 'ancient university style' the college sent me a list of equipment I would need. It included a breakfast set, a tea set, a hip-bath and a bath can. The two latter were listed in spite of the fact

[1] This is an extract from the memoirs written in 1980 by Sidney Taylor, who died in 1999. The Editor is grateful to his three sons for making it, and extracts from their own recollections below, available for publication. The article in the previous issue on the Boat Club motto prompted these memories: Sidney Taylor's father carved the crest on the college boathouse.

that the college had built large up-to-date ablution units, which included showers as well as baths. In crockery I confined myself to a tea set: luckily, for I was in lodgings and all crockery was provided. As it was, I took a large wooden chest full of things as well as a trunk, and sold the surplus when I got there for about a quarter of what it had cost my parents to provide. The chest, painted grey with my initials on it, stands in our garage today and I often look at it and remember the needless expenditure my parents incurred when they were in such a position that they could only just afford to pay my expenses.

When I went up, my father opened a bank account for me and paid in £600 to cover the cost of three years at the university: fees, maintenance and all sundry expenses. Six-hundred pounds was the total of my parents' savings and he gave it to me with the words, 'When that's gone there isn't any more!' I had never had to manage money before and think he was very trusting. Imagine my feelings when, at the end of my first term, I found I had spent nearly £100! I have kept detailed expenditure accounts ever since. As I had signed that I would teach for ten years after becoming qualified, I had a Board of Education grant of £250, refundable if I failed to keep this agreement. At the end of four years I had £80 to spare and with this I bought a motor-bike. I think now that it would have been more thoughtful of me to have given back this money to my parents, but youth is youth and I got a lot of fun out of the bike until, some 18 months later, it blew up.

The four-year teacher-training qualification consisted of three years working for a degree and one year after graduation studying for the Cambridge Certificate of Education at the Cambridge University Training College for Secondary Schoolmasters, which had its headquarters in Warkworth House, Warkworth Street. So that we could be considered as 'in training', we attended Warkworth House for lectures on educational subjects once a week and observed special classes at the Central School nearby. In my first year we had lectures on phonetics (to get our accents up to scratch?); in the second year there were classes in music or art; in the third year we studied Bishop Berkley's *Theory of Vision*

and Other Writings, the heading of the attendance list for this being 'Reading'.

The art classes I attended were anything but inspiring. We would sit in the Central School playground and draw the buildings and the one tree that graced the site, while the art master would chat about music with the music experts, at the same time sketching-in and tarting-up our drawings without any word of explanation or instruction. What a farce it all was! However, one afternoon he announced, 'We've got an inspector coming to judge the music next week. I want you to go to the back of the room, open your mouths wide, but, for God's sake, don't let anything come out of them!' So we were trained to meet inspectors.

The Cambridge custom was, in those days, for a man to dine in hall in the evening but to provide all his other meals himself either by his own efforts at cooking or by having breakfast and lunch sent to him from the college kitchens. The Hostel departed from this custom by having a common dining room for its 30 or so residents, where a cooked breakfast and a bread-and-cheese-and-jam lunch were provided. It was supposed to be a cheaper alternative, but I don't think there was much in it.

In my second year I was in K4, a small bed-sitter about ten feet by 12 feet. No WCs or washing/bathing facilities, other than the bedroom wash-stand were provided in the Hostel building. For these we had to go across to the far corner of the paddock, behind the lecture rooms (now the library), a distance of about 150–200 yards. I often walked across there in the snow in slippers, pyjamas and dressing gown.

As I was to read for the natural science tripos I was assigned to the care of one of the four Tutors: Alex Wood, a tall, distinguished-looking, kindly Scotsman, much liked throughout the university. He had come to Cambridge from Glasgow, where he had studied under Kelvin. He was an authority on acoustics and lectured at the Cavendish on mechanics and the properties of matter. I spent my three years reading for Part I of the natural sciences tripos, on which a degree was awarded and I chose physics, chemistry and botany as my subjects. Physics was centred on the Cavendish Laboratory where Sir Ernest Rutherford (later Lord) was working

up to splitting the atom. He would often be around in the labs when we were doing our practical work. In chemistry the most well known figure I came across was Sir William Pope who, during the First World War, had produced mustard gas. He was an excellent lecturer, illustrating his subject by summaries and remembering the boiling point or melting point of every substance he mentioned, a necessary identification for organic substances. Once he forgot one and apologised profusely; later in the lecture he remembered it, to the cheers, applause and stamping of his audience.

Altogether, on average, I put in 30 hours a week attending instruction of various kinds. At the end of the three years I got third-class honours. Looking back I can see that I didn't organise the rest of my time, especially in vacations, efficiently. I ought to have gone to the library and sought out old tripos questions to work through, so as to give point to my reading and to give me something specific to do, but I was afraid of finding out that I didn't know the work and had something to learn.

I was no good at games. I rowed for my first term, but though I enjoyed it I thought it tired me too much and gave it up. I had a try at hockey, but I did not shine and did not persist. Timothy later wore my shirt with distinction with the Emma colours on it. I could shoot and joined the CURA, firing a .303 Lee Enfield rifle on the university's open range and the .22 miniature rifle on the indoor range in the Market Place. I did not get far though, for I could not afford telescopic sights and my own rifle. I joined the CUOTC signals company and Sunday afternoons were given over to practice with flags, lamps and Fullerphones on the University Rifle Range. I was chosen for the 1923 team to signal against Oxford University OTC. For the 1924 competition I was chosen to be team captain. This led to my rapid promotion: one week I was a corporal, the next a sergeant and the next sergeant-major of the signals company! On both occasions we lost.

Soon after I went up to Cambridge I was invited to tea by Rigden of Corpus, who was a member of the Cambridge University Rover Scout Troop. 'All my friends, Taylor, are Scouts.' What could I do but join the CURST? I did so by joining the Emma patrol, the Lions. We met in rooms at the top of A staircase, some 30 years later

occupied by my son Bill. I remember that one evening we were visited by the troop leader and he (pretended to) upset a kettle of boiling water over his foot, to which we were all required to give immediate first aid. It was not long before there were too many Emma Rovers for one patrol, so a second patrol, the Rams, was formed. The uniform was designed to be economical and thrifty. We wore dark-blue shorts and grey flannel ex-Army-pattern shirts, whose collarless neckband was concealed by a pale-blue scarf. Stiff-brimmed Stetson khaki hats conformed to normal scout headgear. We carried six-foot ash staves, marked out by circular grooves into feet and inches.

I learnt to 'spin a crinoline' at a summer scout camp, which stood me in good stead later in my career when I persuaded the school's Guide Mistress, Joan Hollingworth, to learn the art, and so began our romance. After my introduction to scouting at Cambridge I continued this interest. In 1947 and again in 1948, I organised county scout camps to improve camping efficiency generally and for this work was awarded the scout medal of merit.

We attended chapel regularly on Sundays, where the singing was arranged for male voices by Dr Naylor, the organist. Sometimes we went on a weekday, and I remember one occasion specially. Among our college dons was the Dixie Professor of Ecclesiastical History, Dr Joseph Witney. Joe was deaf and on this particular evening he was one of the congregation. The psalms were read, the Dean reading a verse, the congregation responding with the following verse. All started well, but gradually Joe caught up the Dean and finally passed him, by when the rest of us had left them to compete! In his youth Joe had had a rival for the affection of a certain lady. Joe challenged his rival and had a fisticuffs fight with him on Parker's Piece; he won the fight and the lady, who became his wife and whom we saw regularly attending chapel with him. One would never have suspected this past when the venerable old Joe entered chapel attired in his doctor's robes.

On my morning peregrinations to the baths I would see a young history don. In the afternoons one would meet him in Front Court, close-cropped and swinging an ash plant as he returned

from his daily constitutional. This was Teddy Welbourne, afterwards Senior Tutor and Master in the days of Graham and Timothy.

In the summer vac before Timothy went up, I took my sister-in-law Nina, a Roedean School housemistress, Graham and Timothy to Cambridge for the day to have a look around. We arranged to eat a picnic tea in Bill's rooms (he was away for the day at an interview) on A staircase. While tea was being prepared I went along to the college office to make some enquiry or other. But I never got there. As I came to the door Teddy emerged. 'Hello, Taylor', he said, putting his arm on my shoulder and leading me out in Front Court. 'And what about that young son of yours who is to come up next term?' 'I've brought him for the day with his aunt and brother to show them round', I replied. 'We're just going to have tea in Bill's rooms'. 'I'll have some with you', said Teddy. And we proceeded up the staircase. As we came to the door I reached out to the handle to open it. He brushed me aside, opened the door himself and announced, 'I'm the Master!' You should have seen the astonishment on the faces turned to him. Teddy loved an argument and he and Nina spent the next two hours – till it was time for him to go to hall – arguing the whys and why-nots Taylor boys should be admitted free to the college on account of their ancestor Wollaston-Dixie's scholarship (which had been converted into the Dixie Professorship)! Incidentally, when on Graham's degree day his Grandfather Woodcock saw the college plate, he was very interested to see engraved on one of the tankards the very crest that was engraved on the signet ring he himself always wore.

When I went up to Cambridge in 1921 the undergraduate population was a mixture of ex-servicemen of the 1914–18 war and of boys fresh from school. Naturally, the former were more mature in outlook and tended to be slightly avuncular to the latter. This did not always 'go down' and there were some good-humoured clashes.

Among the older men in the Hostel was Bill Bailey and he had dared to advise some of the youngsters, so these, led by Andrews, a medic, decided to 'take it out of him'. One evening while Bailey was in hall all his furniture was moved out on to the landing and

the Hostel porter was decoyed from his rooms beside the postern door by someone blowing a fuse and sending for him to make the repair. When he was clear, a donkey, dressed in a collar, gown and square, was brought in through the postern door and coaxed up H staircase and let loose in Bailey's sitting room. Timmy Hele, later Master, was Hostel Tutor at the time. When informed in hall 'Timmy, there's a donkey in the Hostel!' replied 'Oh!' I thought there were 30', and went on with his dinner!

From time to time university and college buildings would be decorated with extra appendages on their highest points. Such decorations were usually chamber pots. In Emma one such appeared one morning on the top of the cupula on the lecture rooms (now the library). At the time The Revd Freddie Head was Senior Tutor and he lived in the house that adjoined the Hostel. He was discussing with the Head Gardener how to get it down, for it was a mountaineering feat to reach it and the scaffolding alternative would have been expensive. 'I think I could shoot it with my gun' said the gardener. 'A good idea', said Freddie, ' – but wait. Can you see the colour of the rim?' 'Yes', said the gardener, peering hard through a pair of binoculars. 'It's blue.' 'It's mine', said Freddie!

In my fourth year at Cambridge I was a graduate reading for the university Certificate in Education. For the whole of the Lent term we were sent to schools to do part-time teaching practice and to observe. Many of the men went to public schools but I was sent to Kendal Grammar School in Westmorland to teach woodwork as well as science. My father was speechless. 'You don't know anything about woodwork. I suppose I must give you some ideas about it.'

Sidney Taylor (1921)

Memories of 1944 prompted by a visit to East Anglia

A visit to the Norfolk and Suffolk Aviation Museum at Flixton, where there is a memorial to the 446th bombardment group, brought back some memories of earlier days.

In April 1944, I was studying engineering at Emmanuel, before entering the Royal Air Force as a trainee pilot. I recall walking, early

on a crystal-clear summer's morning, to hall for my breakfast and pausing in front of the chapel to talk to Professor Frank Dobie, a visitor from Texas. We were overawed by the assembly of Boeing B-17s, the Flying Fortresses, over Cambridge. The process took a considerable amount of time as the squadrons, then groups, steadily climbed under the heavy weight of bombs and gasoline, until the whole of the combat wing got up to 10,000 feet, each aircraft leaving a distinctive set of four vapour trails. A coloured flare indicated when the formation of approximately 300 aircraft was assembled and ready to proceed, and they then set course for enemy territory, the noise gradually fading away and the vapour trails slowly dispersing in the sky.

I shared rooms in Old Court with Gordon Robinson. We were on the second floor and directly below were the rooms occupied in his time by John Harvard, or so we thought. One afternoon we were returning to our rooms when we met two eighth US army air force pilots who were looking round the college. Guy, a lieutenant, was the captain of a B-17 Flying Fortress and Howard was his co-pilot. They had just arrived in the UK from Texas, where they had completed their training and now they had joined an operational squadron near to Cambridge. We invited them to our rooms, entertaining them with the usual afternoon fare of tea with toast made in front of an open fire. They were genuinely surprised at the shortage of food in Britain and they said they would like to visit us again.

Guy told us about their first training flight in England. They took off from base, did a gentle climbing turn, then looked behind and to their utter astonishment saw three airfields in the green patchwork quilt of the countryside below; they didn't know which one was the base they had just left. 'God darn it!' Guy said, 'it isn't like flying in Texas, there you can fly for hundreds of miles and not see a thing!' Fortunately for Guy the exercise involved formation flying with two other B-17s that were already airborne, so they continued the climb and joined them, never admitting that within minutes of taking off on their maiden flight in England, they were completely lost.

As the weeks passed, Guy and Howard were frequent visitors to the college. Guy bought us a large tin of dried eggs in a drab

olive-coloured tin to augment our meagre rations and we used this to provide them with scrambled eggs on their visits, a treat for Gordon and me but not so for the GIs in the European Theatre of Operations, where it was generally detested.

When their initiation was complete and they started operational flying over enemy territory, their easy-going manners seemed to change and it became apparent that all was not well in their relationship with each other. It was then that Guy confided in us the tremendous strain of operational flying over enemy territory was having on the aircrews. We had not appreciated that they were fighting a battle nearly every day, as hordes of German fighters would attack their formations high in the sky in icy cold conditions, when there would be a deadly combat whilst the aircraft struggled to maintain formation, get to the target and discharge their lethal cargo. The vapour trails, which appeared so picturesque as we looked up and admired them, were a source of great difficulty to the pilots.

Flying in formation was like flying in cloud and there was always a very great danger of colliding with the aircraft next to you. Over enemy territory the trails gave an immediate indication of your position to the packs of fighters waiting for you and they acted as a guide to the anti-aircraft defences, which augmented the enemy radar. Guy said that Howard seemed unable to cope and he would shrink into his armoured flak jacket, being reluctant to emerge until they were out of harm's way. The situation was such that Guy felt that if Howard was unable to overcome his problem then he would have to be taken off flying duties.

Then the visits suddenly ceased and we realised that our friends must have been lost in action. It was a distressing time for us as they had come to accept our room and our friendship as a safe haven where they were always welcomed. Guy and Howard had really appreciated a spot in Cambridge where they could come and relax whenever they wished; I still remember them today.

This really brought home to us a side of the action that did not appear in the newspapers and it highlighted a different picture not apparent to the locals, who saw the Americans on leave, being

friendly and sociable, enjoying and sharing the benefits of food and sweets with people they got to know. The influx of Americans had a profound effect on the city of Cambridge.

Over the centuries a delicate balance had built up between 'Town' and 'Gown', the relationship between the city of Cambridge and the academics. In 1945 we lived in days of old, wearing gowns, having to be back in college by 10pm and administered by Proctors, who were responsible for various duties including the maintenance of discipline. It would not be unreasonable to say that there was a shortage of female company in the city. One could take a girl into college and into one's rooms providing the door was left open and they left at half past four in the afternoon!

When the GIs arrived there was a significant change. Unsurprisingly the shortage of girls became acute, as the available stock was siphoned off by the visitors from over the pond. They filled the local pubs to overflowing as they consumed vast amounts of weak warm beer. They loved the atmosphere of the old-fashioned inns but not the taste of that drink! The historic buildings were a great attraction to them as the city was seeped in history. When a US air base was stood down from operations, the opportunity was taken to hold a social occasion there. Girls would line up outside the Guildhall, awaiting a convoy of buses and vans to whisk them away to airfields. It was a strongly held belief that many did not return to Cambridge immediately after the dance.

John Facer (1944)

Another cup of coffee? Yes, please!

One day in 1946 my father, an Emmanuel man who matriculated in 1921 and who was very good at keeping up 'contacts' that he had made, took me to Cambridge to see the Senior Tutor at his old college, with a view to my entering it in 1949. We were shown to the Senior Tutor's rooms and my father was greeted cordially, both men using surnames, as was the custom. Coffee was served. 'Sugar, Taylor?'…'No thanks!' I was not consulted and a cup of strong sugarless coffee was presented to me. One thing that I

loathed was unsweetened coffee, but I drank it up dutifully and tried to appear that I enjoyed it. Conversation continued and a little later … 'Another cup, Taylor?' 'Yes please!' and another dose of this horrible penance was presented to me. Thus I entered Emmanuel: things are rather different these days.

Perhaps it was just as well that my father had made the arrangements for me to come to Emmanuel before I served my National Service, because when my demobilisation was due in the summer of 1949 the Korean war had started and release from the army was deferred in some cases. The fact that I already had a place at Cambridge was a factor in saving me from this.

I went 'up' in October 1949, to read natural sciences, taking Part I in physics and chemistry as whole subjects, and mathematics and mineralogy as half subjects, and then physics for Part II in my third year. I obtained a Second in Part I and a Third in Part II: these results were perhaps disappointing at the time, but not all that surprising as I was not a great academic. I enjoyed physics as a subject, but I liked its practical aspects more than the abstruse and mathematical side. This was reflected in my becoming a research assistant at the radio group of the Cavendish Laboratory, which did not lead to any further academic progress but gave valuable experience of research work. Fortunately I then found my vocation as a research engineer in the BBC, where my acquired 'expertise' rapidly outweighed my poor degree: in fact, I do not recall the subject ever being mentioned.

My first impressions of life at Emmanuel were of a feeling of freedom after years of strictly regulated life at a boarding school and then in the army as an 'other rank'. Perhaps this is being rather unfair to the army: as a technician (I was in the Royal Signals as a radio mechanic) I saw little of the parade ground after my initial training. Life at Cambridge was totally different, with any feeling of order and discipline having to be self-generated. Fortunately I had plenty of advice from my father. The principal obligation was to 'keep term', which was to attend the formal dinner in hall every day (or most of them) in Full Term. Once written into the daily schedule this was not a problem at all, but a pleasure: the food was

excellent and well served, and the companionship with my regular group of friends very enjoyable. Wearing a gown for this and other occasions also became part of one's life, although it could become a nuisance when riding a bicycle. Some latitude was allowed in the appearance of the gown as long as it was of the correct length, but my father insisted that mine should be an Emmanuel one, with pleats down the front.

I disliked the most prestigious sporting activities but I joined the Hare & Hounds Club and ran with them regularly for my first two years at Cambridge. Their headquarters were on the first floor of an old building, where the floor and lower part of the walls had been lined with lead sheets, with hot-and-cold taps protruding at intervals. On returning from your run you picked up a tin bath, filled it and cleaned yourself (mud and all), emptying the bath onto the floor afterwards. I remember seeing the well-known athlete Chris Brasher picking up his bath full of water and emptying it over his head; I was impressed. When I visited the Graduate Centre some years ago I noticed that the stair treads were (rather unusually) lined with lead sheet: dull grey for the most part but with small silvery discs every now and then. The Centre is on the site of the old Hare & Hounds building, and I assumed that this was the source of the lead, with the shiny discs where the taps had been. The receptionist, however, knew nothing about it.

While running was my sporting activity, my friends used to visit me, drink my coffee and talk about nothing but rowing, so in my third year, following the 'If you can't beat it, join it' principle, I joined the Boat Club and found an activity that I really enjoyed, and regretted that I had not taken it up earlier. I was in the fourth boat and made one or two bumps, but did not 'get my oars'. My brother Graham did do so, and the oar that hangs in his sitting room is one of the ones that I used. I recognise it by the 'Festival of Britain' logo on it.

Apart from any sporting activity, there were (as now) plenty of clubs and societies that offered distraction from academic work. My interest in church-bell-ringing started when I was 11 years old and it was perhaps inevitable that I joined the University Guild.

We rang regularly at St Benet's and St Andrew the Great's churches, and occasionally at Great St Mary's and the Catholic Church, and sometimes visited other local towers to ring peals or quarter-peals. Transport was a problem here, as in general undergraduates were forbidden to drive or keep a car 'within three miles of Great St Mary's'. On a more formal occasion, I rang for the service at Great St Mary's at which Billy Graham delivered the University Sermon. The church was packed and I watched from the organ loft, which was accessed from the same staircase as the ringing chamber. We were expecting a spectacular 'fire and brimstone' oration, but we received instead a closely reasoned and somewhat dry lecture on a text that I have long since forgotten. I think that many people there were disappointed.

Another activity that I have enjoyed from childhood is choral singing, and I joined the University Musical Society chorus under Boris Ord, a very formative experience in itself. For most of my time as an undergraduate I sang in the Chapel Choir, then of course all-male, and for a short time I joined the Raleigh Singers, based in Newnham.

In my earlier school days, before I became involved with the Junior Training Corps during the war, I had been a boy scout, and I rejoined the scouting movement at Cambridge. The Rover-Ranger Scout Group, as its title implied, was open to men and women and there was a strong social element in its activities. One tradition was to hold a joint party with our Oxford counterparts on the Guy Fawkes weekend, the venue alternating between the two universities. One of my scouting friends was a geographer, and part of his work was to assess the effect of terrain on the local weather. He used the scouting group to set up a number of weather stations (camps) in the Cairngorms, part of the Scottish Grampian mountain range. This was pioneering work: it was well before Aviemore and the Cairngorms became a ski resort and everything had to be carried up by backpack. We did this over two years: a trial run in 1952 and the full-scale survey lasting about three months in 1953, with several groups of people, not all from Cambridge, taking part.

I was also a member of the Wireless Society, which I think I used mainly for its workshop facilities: I also had a workshop

at home. The society organised lectures and visits, and I remember seeing a colour television display at the Pye factory, probably in 1951.

Student accommodation at Cambridge was inevitably a problem, and the general rule was to spend the first two years in lodgings and the last one in college. I spent my first year at 55 Warkworth Terrace, and I became adept in timing my cycle ride round Parker's Piece to college to have breakfast in hall, which closed at 8.30 am, and then get to lectures by 9. At the end of this year a friend and I found out that it might be possible to spend the coming year in college, provided that we were prepared to share a room, and this turned out to be a very satisfactory (indeed in student terms luxurious) arrangement. We were given the upper set of Fellows' rooms on A5 staircase (A 5 iii), with two smaller rooms which became our bedrooms and studies, and a large comfortable sitting room where we could spread ourselves. I had built a radio and we bought a cabinet and loudspeaker from a friend, who had made them but then found himself short of cash. I still have the loudspeaker enclosure, 57 years on: it makes a good chair-side table and storage space, and is known in the family as the 'cube', an exact description. In my last undergraduate year I asked for the room in the Hostel (H 11) that had been my father's nearly 30 years before: comfortable enough, but with toilet facilities three flights of steps down, in the basement. I do not recall this troubling me at the time, but it became more significant when I asked to stay 'in my old rooms' during a reunion, many years later.

Bill Taylor (1949)

O come, O come, Emmanuel. No room to come in

In January 1951, half-way through my last year at school, I walked aboard HMS *President*, on the Thames in London, and, without consulting anyone, joined the Royal Naval Volunteer Reserve as an electrical mechanic second class. My horrified father thought I had signed my life away, as indeed I had, but it proved to be for the best.

Later that year father was discussing my elder brother's situation with the Senior Tutor and Dean of Admissions, Teddy Welbourne, whom he had known as a junior don when he was up. 'What chance of my next son, Graham, coming to the old college?' my father asked. 'Not a hope. We are chockablock and I closed the list a week ago. Well, I did let someone else in but he was a special case.' 'What a shame but if you are full you are full. Purely as a matter of interest, how was the chap a special case?' 'Oh, the RAF said that, if he got a degree first he might get a commission during National Service.' 'That's what the navy told Graham.' 'He can start in October then!'

On 5 October 1951, I went up. My father took me into Lloyds Bank, where I opened an account, and was given a cheque book. Father deposited, I think, £300 to last me for a year; I remember I used to draw £12 a week to cover everything. I have never quite forgiven Lloyds that the first entry on my first statement, despite the large deposit, was in the red (stamp duty on the cheques).

For the first year I was in digs in Warkworth Terrace. For my second year I was in Emmanuel House, where my top floor bow window looked out on the pond and the nesting swans. Back in digs for my third year, I had a basement room in 1 New Square; the house was knocked down when Fitzroy Street was widened so I now point to the pavement and say ' I used to live under that stone'.

Visiting ladies had to be out of College or digs by 10pm and you had to be in college or your digs by 11pm, when the gates were locked. If you rang the bell after that the porters would let you in but you would be reported to your Tutor (or you might get seen by the Proctor, chased by the 'Bullers' and reported if caught. The remedy was to climb in). My 1951–52 *Varsity Handbook* advises tipping your 'bedder' and advises ten shillings at the end of term and perhaps a pound in the summer. 'Remember, she knows a great deal more about you than you think; kirbigrips are so easily found.' Another memory is of Welbourne's 'Folly' (the Front Court toilets equipped with soap piped from a central reservoir and early hot-air hand-dryers on column bases like hair-dryers in ladies' hairdressers).

Wearing my gown, I went to dinner in hall. Finding a seat halfway up on the left, I found myself with a group that cemented together and became friends for life. As we were served dinner, Mr Freeston, the Head Porter, asked our names; he did so again the next night but, after that, he knew us all.

We were served all our meals in hall or the Old Library. 'Old Caron' pushed the rapidly cooling food across New Court at snail's pace in a low handcart. We had gas cooking rings in our room and could brew tea or coffee for our friends; we would go to the buttery weekly and draw a meagre allocation of a few ounces of butter, sugar and tea (rationing was still in force).

Ken Roscoe was my Tutor, Director of Studies and supervisor, who gave us copies of the previous four years' end-of-year papers. Taking each of the four years in turn before starting the cycle again, he would ask us to tackle four questions. When we had done our best, we would go to his room and look at his worked answers; only if we were still mystified after studying them, would we seek his help.

I read mechanical sciences Part I leading to an honours degree in three years – the 'normal course' – and got a Third (something like three-quarters of science candidates got Thirds while three-quarters of arts candidates were awarded the higher grades). In later life I worked in project management, mostly on nuclear power station construction, specialising in control and instrumentation. Common sense and logic counted for more than all the mathematics we had been taught; however it was necessary to have done it and the breadth of Part I mechanical sciences prepared one to handle civil, mechanical and electrical problems as they arose. Engineering covers many roles and there were, of course, others for whom the mathematical theory was of more direct relevance.

Monday to Saturday, the mornings were filled with lectures (or coffee at the Copper Kettle if the lecture seemed less attractive: one lecturer recited the contents of his book accurate to the last comma and the relevant chapter could be read in one's own time), drawing office work (all pencils, paper, drawing instruments and a drawing board in those days), and labs. These last were on a rota

basis, as we had to take our turn on each piece of large plant. Mostly we followed written instructions and then plotted our results as a graph. However, we had to expand two experiments, in each of the first two years, to investigate more widely, take photographs and produce a full report. Gaining an alpha on the first excused you the second that year, so we made great efforts.

The afternoons were largely devoted to sports and the evenings included the weekly supervision, individual study and clubs of various sorts: for me CUMS second orchestra (anyone who played an instrument and cared to turn up), the college orchestra, Rover Scouts (largely Scottish dancing and taking the 18-year-olds of the Littleton House School Cub Pack out punting with the Ranger Company from Homerton assisting), campanology and the Student Christian Movement (I never joined the Cambridge Inter-Collegiate Christian Union though I went to their bible studies with friends). My parents and grandparents were Christian church-goers and I had always gone to church on Sundays (matins, evensong and additionally monthly communion while at school), but faith became more personal to me at this time and has remained the basis of my life ever since. Mention of the college orchestra brings me to the college Smoking Concert. Before the concert we, in the orchestra, carried coffee round and at the end the singers would clear up. The orchestra, splendidly balanced with, perhaps, one violin, two violas, a flute, a double bass, three trombones and a cornet, would open with 'The Queen'. There would be loud applause halfway through when the brass came in a semitone flat. The second half, by the singers, was Ekstracts from Gilbert & Sullivan (no, that is not a miss-spelling). Rugby forwards would try to impersonate ballerinas and I will never forget Norman Sykes, the current Dixie professor, in a poke bonnet and with a basket of flowers on his arm, singing, in a deep gruff bass 'I am called Buttercup, sweet little Buttercup, though I can never tell why'.

Once, when sailing on the Cam with some friends including another Homerton girl, brother Bill came by in a sculler and we floated a bottle of orange squash across to him. That Homerton lady later became my sister-in-law.

Travel between these various events was by bicycle, at high speed and with one's undergraduate gown streaming behind. A taxi driver, asked how he avoided us, said 'Weeell, when yer 'its 'em they're either where they come from or where they be going to'. The bikes, emblazoned with an Emma 'E' number on the back mudguard, were pretty ramshackle. I remember one friend, having raced back from the Magog Hills, pulled up at his digs and the front wheel folded up with the front forks corroded through on both sides!

Though some sought casual paid employment in the vacations, I did not. There were one-week university courses on pattern making and in the machine shop, where I made a four-inch vice, and industrial experience at ECC and in Parsons steam-turbine works in Newcastle. One year there was another complete term in the long vac, which was devoted to surveying. I managed to make Coe Fen mountainous with the starting and finishing point of a circular transit at different levels! My annual RNVR training took me to sea for a fortnight each year. For the rest, my father advised 'a fortnight off because you need it and a little study each day for the rest of the time; eight hours would be adequate'!

During my first term I played rugby. Then I found rowing and was in a reasonably successful College third boat. We won our oars in the 1953 Lent bumps (all Macon or similar blades in those days; varnished and with Emma colours in stripes near the end of the blade, though blue with a blue-and-cerise end for the trophy one). When I went up, the Emmanuel boathouse was the only one without a college crest. My father and elder brother decided that that needed to be rectified and, as my grandfather was a carver, decided to do something about it. George Hones, the boatmen, got the wood (I remember that the lion had to be let into the shield to get the required thickness). When carved, it was painted. Below the shield was the Boat Club motto *Fit Via Vi*, which was in general use at the time. Fixtures were designed such that, once mounted, the shield could not be removed, as a trophy, by another college. Brother Bill put it up but did so very slightly out of true and then could not move it, so thus it remains to this day.

One day during the East Coast floods a coach-load of us was taken to some point on the coast. We spent the day filling sandbags, loading them onto a flat barge to transport them across a drainage dyke and offloading them into the breach in the embankment that separated the dyke from the sea. The aim was to fill the breach to greater than high tide level before this next occurred, so that our work would not be scoured away by flowing water. I believe that, despite a long and gruelling day's work, we failed and others had to start again the next day.

Each year there was an annual 'Rag Week'. I remember taking part, though I forget in what capacity. I do remember Cuppers supporter processions. If we hired the lion costume in time, it led, accompanied by the Head Porter (dressed like Mr Freeston), the Tail Porter (carrying its tail), Lord Porter (in deference to the eminent lawyer then a senior member); if the opposition beat us to the hire, it would grace their procession in chains. There would be chants of 'Oh come, oh come Emmanuel, Oh can you win oh [college name]? Oh can you hell.' On one of the rare occasions when we lost, I remember slow marching back to college, hats off, heads bowed, to a slow solitary drum beat and with an oboist playing the first few bars (all he knew) of the dead march from *Saul* over and over again.

There were many opportunities in Cambridge that did not attract my interest or for which I had little time. As for libraries, my first visit to the University Library was after I went down and I have little recollection of the college library. I did visit the engineering department's library a few times but we mainly owned and worked from recommended text books. In those days there was no JCR or student union and, with the possible exception of Bump suppers, drinking did not feature high in my activities, while drugs, free-love and LBGT issues had not surfaced. It has been most worthwhile to rectify some (though not all!) of these deficiencies (besides keeping up with technological advances) in recent years by attending alumni weekends.

Graham Taylor (1951)

Random memories of Cambridge

I went up to Emma in 1953, following in the footsteps of my father and two brothers; family connections were helpful in those days and I would not have received a place under today's entry criteria. I think this is reflected in today's exam results when the majority of students achieve Firsts or upper Seconds, whereas in our time, the majority probably got lower Seconds and there were as many Thirds as upper Seconds. I think it was due to entry level rather than grade inflation.

Having started straight from school, with National Service postponed, I arrived at the newly opened hostel at 43 Newmarket Road, to meet a fellow fresher carrying his metal trunk up the stairs with '2nd Lt Peter Morton' painted on it. We became fellow hockey players and life-long friends. He became a farmer and sadly I went to his funeral very recently. One of the joys of studying medicine at Cambridge was mixing with students of all subjects, whereas those doing their full courses at London hospitals mixed only with fellow medics. My friends were mainly from the hockey club, though of course the other medics as well. The caretaker in Newmarket Road was Freddie, I think one of the porters, and his wife. He was a lovely dark round jolly man. We took all our meals in college, a ten-minute cycle ride away.

The early days were a bit of a whirl and most of the lectures and laboratories in the medical school were on the Downing Street site. I remember acclimatising myself slowly to the dissecting room, where we undertook dissection of one part of the body, in pairs, each term: arm, leg, head and neck, thorax and abdomen. On the first day, I poked my head through the door, viewed the rows of bodies and rapidly retreated to the nauseating smell of formalin. A day or two later, I went in and looked around before retreating. On the third visit, I touched my allocated body and finally got to joining Brian Meldrum, my dissecting partner, to start work. Brian Meldrum was more assiduous than I was and achieved a First before going on to become an academic psychiatrist at the Maudsley Hospital. I am sure he retained his knowledge of anatomy better than I did!

From the start, I joined the Hockey Club and got into the Emma team, playing at left half. In my third year, I had a final trial for the Blues and was elected to the University Wanderers Hockey Club. We played matches against other colleges, seemingly most afternoons at Wilberforce Road, where John Manning was the excellent groundsman. There was never any training, practising or coaching; we just played. Another lifelong friend, John Mirams, together with Peter Morton and I, were the three freshers in the team and joined the likes of John Griffiths, who became Attorney-General of Hong Kong, Barry Mortimer, a judge, Tom King, a cabinet minister and John Britten, a Welsh international and nephew of Benjamin. I think we were a team around the middle ranks of the first division. We went on memorable tours each Easter, to Leiden in Holland, Russelsheim in Germany and to Bournemouth.

My second year was spent in college on R staircase in North Court. Our bathing facilities and I think toilets were in the corner of the court. Our meals were taken in college and for dinner, the first sitting was more informal but for the second sitting we had to wear a gown and wait for grace. I think we were waited on. We had a gyp room on our staircase but I don't think I went far beyond making a cup of coffee.

Girls were not allowed in the college after 10 pm and students had to be in by midnight. John Mirams had the experience of a ground-floor room in the corner of Chapman's Gardens, where the window opened on to St Andrews Street. It was a recognised exit for girls to be smuggled out after hours and students to re-enter after midnight! Whether he even woke up, I do not know!

I was invited to join the XII Club, which was a lesser version of the Mildmay Essay Club, and we read and discussed poetry rather than having to write our own essays. Tom King was the chairman and I became the secretary. Like all clubs, we had an annual black-tie dinner. I became deputy editor of *Light Blue*, the sports magazine. It had become an Emma-run magazine. John Mirams was the editor.

In my final year, I had lodgings in New Square. The final tripos exams loomed high on the horizon and I spent all my vacations

studying and trying to memorise all the pathways and neighbouring relationships of all the blood vessels, nerves and organs as well as how they worked. We were required to reach lower second level in both anatomy and physiology, though not necessarily the overall result, to exempt us from having to take and pass the second MB. Of course, the brighter guys had already taken this Part I exam at the end of their second year and went on to do Part II in their final year, specialising in one subject. However, Part I alone gave us an honours degree.

The exams finally came and went and we were left with a feeling of relief that at least it was over for now. Coffee sessions with my friends became even more frequent, though oddly rather less enjoyable as there was no feeling that you were 'taking time out and really ought to be studying', which somehow made the coffee taste nicer!

Peter Morton, John Mirams and I, together with Peter Cockell and Geoff Muscot, gave a leaving drinks party in Chapman's Gardens for all our friends. The drink for parties was usually a mix of Merrydown cider with other additions, as it was cheap and intoxicating! Towards the end, word came through that the tripos results were posted on the Senate House notice board, so in trepidation, I dropped everything and made a dash to the Senate House and joined the mass of craning heads at the notice board. I found that I had been awarded a lower Second, including reaching the required levels in anatomy and physiology and my relief was intense. I returned to the party but do not remember much else about it!

After leaving Cambridge, the medics mostly went to London hospitals, though a few went to other cities to do their three-year clinical training as there was no clinical school at Addenbrooke's then. The quirk was that we all returned to Cambridge to do our final exams for a Cambridge MB BChir degree, so we met up with old friends for the first time in three years having been at different London hospitals. I was the only one from Emma going to Westminster Hospital, although we had 36 Cambridge graduates in our intake. Most of our Emma intake went to St Thomas'.

Tim Taylor (1953)

An Oxford boy[2]

I was born, brought up and schooled in Oxford, and of Cambridge I knew nothing. A new master, the school's first Cambridge historian, suggested I try Emmanuel, where his friend and fellow ecclesiastical historian, David Newsome, was director of studies. So, on a cold December day in 1960 I took the train from Oxford to Cambridge. Elated by my first sight of Wren's chapel and cloister, excited by the announcements pinned to the notice boards, I sat waiting, nervous and bristling with competitiveness and prejudice. I evaluated the other candidates, irritated by a tall man with the air of one who had not only already secured entrance, but was here to discuss his imminent fellowship. My turn came to see the Senior Tutor, Peter Hunter Blair, a handsome man I took to be of great age (he was 48 at the time).

The history scholarship steeplechase comprised a three-hour essay, a general paper, two history papers and a Latin unseen followed by an interview with the friendly but probing Newsome. Ten days later the telephone rang in the evening. A telegram message, hard copy delivered early next morning, congratulated me on winning the Gerald Campbell Owen scholarship.

The following October my Emmanuel life began. By now I had sussed that Emma was then a middling sort of college, good at athletics, rugby (excelling at seven-a-sides) and, I was told, engineering and law. I may belittle other strengths, but this was the hearsay. I recalled that Emmanuel had made the national press a couple of years earlier when its new kitchen block had been the object of anti-ugly demonstrations.

A communication had arrived from the University Lodging-Houses Syndicate: 'Coals and wood may be supplied to a lodger at cost … Charges for gramophones and radios should not exceed 5s. per term … Any charge for cleaning boots and shoes must not exceed 10s. per term, exclusive of riding boots, shooting boots and leggings.'

[2] A fuller version of Will Wyatt's account of his time at Emmanuel is in *Oxford Boy: A Post-War Townie Childhood*, Signal Books, Oxford (2018)

Fortunately, I had no landlady to deal with. Emma had built a brand-new home for first-year scholars on the Newmarket Road. Barnwell Hostel was barely finished when the first 29 of us took up residence. I wrote home describing my new room with its radiators, electric wall fire and basin with hot and cold water. The showers were next door, with an unending supply of hot water, under which I came to luxuriate after rugby. School friends in other colleges were impressed. Their letters to parents and friends spread news of my luxurious accommodation: 'Really plush in a cool modern fashion' wrote one.

The college's man presiding over this new colony was the friendly and welcoming Freddie Phillips. It was he who remedied oversights and omissions, seeing that my bookshelves were hung, supplying a wastepaper basket and, best of all, a reading lamp: 'a magnificent black one which balances automatically in any position you leave it'. Yes, it was the first Anglepoise I had seen. I have had one on my desk ever since.

By today's standards I was generously set up. As a state scholar my fees were paid by the taxpayer, along with a maintenance grant of £322 per year (about £6700 today). My father was expected to contribute £16 per year. The Emma scholarship tipped in £20 a term. Vacation jobs – the Post Office, Wall's Ice Cream deliveries, Duncan's canning factory at North Walsham – paid for holidays. College food was £31 a term. My first week's expenses were: 'gown, three guineas; rugby shirt and socks, two pounds; books, five pounds 14 shillings; food, tray and glasses, one pound'. I intended to host intellectual conversations late into the night and these would require drink. Port, sherry and beer seemed to be the thing, an initial supply for one pound 15 shillings.

Many in my year came, as I did, from a direct-grant grammar school. We talked and talked. If it was not as high flown as I had imagined, it was heartfelt. Of schools, of God, of monarchy, of politics and of sex, the last a subject of strong opinions based on little experience. We laughed, insulted each other and realised we were friends. We talked of our futures, for most a compilation of hopes and fears glimpsed through mist. One among us had it planned.

He would return home, marry his girlfriend and work in the firm that dominated the town. I wondered why he was in Emma at all.

I was to lead a largely college life. That wasn't how I had planned it. I fancied myself as a bit of a funny man and asked for a Footlights audition. Graham Chapman (Emma 2nd fifteen and Monty Python) was one of the keen-eyed members who spotted my limited talent for this sort of thing. I offered myself to *Varsity* as a reporter, but the haughty poseur I saw made a song and dance about having to be available regularly for them. This clashed with my wish to play some rugby.

Sport loomed large at Emma at the time. Indeed, *Light Blue* – 'The magazine of Cambridge University sport' – was edited and produced by an Emma team, identified, as were all those written about, by surname and initials only: T D Wainwright, N A Halton, J M K Laing et al. My first sense of the rugby club was of large ex-National Service chaps with a worldly air, some even driving their own cars. Cambridge rugby was in its pomp with a side Frank Keating, the great *Guardian* sportswriter, described as 'the finest Varsity match XV in history – P14 W14'. Its captain, already an England centre, was Mike Wade of Emmanuel. Another Emma man, John Owen, played second row. Richard Greenwood did not win his Blue that season but was elected secretary nonetheless. Both played for England. I have a prized photograph of the Emmanuel seven, runners-up in the Esher Sevens 1962, in which I line up alongside these three luminaries. Who says photographs don't lie?

Emma served what was reputed to be the best undergraduate food in Cambridge, those new ugly kitchens excelling functionally at least. Dinner was generally soup, a joint of some kind with piles of roast potatoes and a substantial pudding. I remember fondly the pre-dinner buzz as we milled about in the cloister, gowns flapping, chums waving, gossip passing, prior to the doors being flung open. Hall was early for the first year, 6.45, so, especially if we had been playing or training earlier, we often topped up after evening activities of the cinema, pubs, even the library. Bhuna gosht or chicken dhansak at the Shalimar in Regent Street was a favourite.

Later in the first term Peter Hunter Bair had us to lunch in small groups. I wrote that, 'he seemed old and tired, rambled a bit, rubbing his eyes and smiling abstractly'. At least he met us, unlike the Master at that time. Edward Welbourne was an historian, I was an historian; I was secretary of a triumphant rugby club and a member of the JCR committee. Yet in three years I never spoke to him nor he to me. Distance had its benefits, for those nobbled by him found it hard to get away. He was 'a legend' I was told then and since. For what I have never known. I was fortunate in my director of studies, David Newsome, he enthused me with his own genuine excitement in uncovering the past. I read my essay to him; he commented and led me into a discussion, opening new windows into the subject and suggesting further reading.

Whatever I had expected in my other supervisor was certainly not that of Mr Goulding Brown. He was a cadaverous man of great age, as it seemed. This time I was correct, for he was 80 in 1961. He wore a black jacket, striped trousers, winged collar and black tie. I see Neville Chamberlain on his deathbed when I think of him. He had rooms in college but was not a Fellow, the reason we believed, was a slight long ago by one or other party. GB's reading lists were idiosyncratic. Few books written since 1920 were recommended. I ferreted out an ancient journal in the Seeley Library to find a pencil note in the margin, 'Only Goulding Brown could have sent you here'. He referred to 'this wretched century' and offered, 'This country began its decline when they began paying MPs … Democracy ruined Athens and nearly always ruined any state.' There was I looking forward to my first vote.

He was followed by the youthful Gerard Evans, a new Fellow in 1962, who guided me through 'theories of the modern state'. Lenin's task, he assured me, was to plug the holes in Marx's writings, 'If Russia since 1917 has shown anything it is the complete primacy of politics over economics'. Evans regarded me, as well he might, with an amused and sceptical expression. I suspected that he cast it on the world in general.

My second year brought rooms in college. Richard Archer and I shared a splendid set on the second floor of Old Court, with a

bedroom each and a shared sitting room that gave onto Chapman's Garden on one side and the paddock on the other. The lavatories and hot water were 30 yards away by the library. We held 'War on Want' lunches in our rooms, bread and cheese with profits to the charity. Colleges competed in fund-raising and Richard, organiser for Emma, lifted us to second position by abandoning serious discussions on world poverty in favour of upping the price, serving better cheese and providing a stream of pretty girls from a Catholic finishing school. Thereby hangs a tale not to be told here.

Old Court was handy for friends to drop in as they returned to college, and so they did most evenings. What with that and the arrival of a girl my work declined. As Part I loomed, I knew I was in trouble. I crammed late, taking pills from the chemist to keep me awake and others to help sleep: no-one I knew ever took proper uppers or downers. I blundered to a not quite disastrous lower Second. End of my scholarship.

Richard also performed poorly in the exams and was determined to do better. He arranged to swap rooms with another friend, Chris Johnson, in North Court, happily not to the room of doom, vacated two years in succession by undergraduates who had to marry and cohabit elsewhere after their girls became pregnant. How much actual coupling took place in the college rooms is hard to say. When a fellow was spotted walking to or from his room with a girl there might be cries of 'nesting', a comforting, unthreatening term reflecting that most visits were for tea, coffee or a snog, rather than the full performance. I never quite reached the finishing line in my room. Mind you, I did loan out the bed once or twice to one of the young Catholic girls, whose paramour was a Yugoslavian artist some years her senior.

It's hard to believe now, but there were such things as 'coffee parties', always hosted by girls. After a fixture in London, even a couple of post-National Service rugby players led us to South Kensington where 'some girls were having a coffee party'. Saturday evening! Coffee! Mostly parties were 'bring a bottle'. At the end of our year Barnwell Hostel threw a party. The Proctors

arrived (they had to be notified) to inspect, much to the amusement of what we called the 'foreign girls'.

We had dinners at the drop of a hat. Gosh we liked our dinners. I bought my first dinner jacket before going up and enjoyed swanking about in it, as did so many others. Was it a badge of something? Of honour? Not really. Of being grown up? Possibly. More likely of a freemasonry into which one was slowly being inducted, the rituals of which one was still learning.

Poppy Day was a big event in the Cambridge year with a parade of floats and revelry. Emma laid on a massive jumble sale organised by the XXI Club in Front Court. In my first year I arrived at seven in the morning and hung my new black-and-white houndstooth coat with red lining on an inviting hook and spent the morning selling. A queue of thrifty Cambridge mothers, regulars, waited for opening time. My best customer was a woman with 12 children who bought solidly for half an hour. Pretty well everything went. Including, as I discovered, my new coat. In the third year I was in the chair for Emma's effort. Among the items donated were two pianos, a violin, a motor mower, several radios and a TV. I was up before six to oversee preparations, my coat left in my room.

It all had to come to an end. I once had the idea of being an historian but there were cleverer people than me reading it and libraries were only enjoyable some of the time. I applied for a journalist traineeship and after a couple of failures was accepted by United Newspapers. The final week of term was full of parties. Ian Stewart and his Savoy Blue Room Orchestra and Mark Arnold and the Dawnbreakers featured at the college May Ball. The following Monday I reported to the *Sheffield Morning Telegraph*. For many years I would dream of returning to Old Court after the vac that wasn't, a dream at first reassuring then alarming. I loved the comfortable sense of returning. But what was the work I was supposed to have done? I couldn't remember. But knew I hadn't done it. And Finals were looming.

Will Wyatt (1961)

Recollections of Mrs Peck and others

When I was four-and-a-half, we moved in May 1954 from Downham Market to Trumpington. My father worked for Barclays Bank all his life and he spent the last 17 years of his main working life at their Bene't Street branch. I believe one of the motives for the move was the educational opportunities in Cambridge, which then were better than in what was fairly rural west Norfolk.

Our parents always tried to do the best for us and this included leather StartRite shoes, which my mother purchased from Thrussels in St Andrew's Street. The shop near where Barclays Bank now operates was across the road from and owned by Jones Shoes. The sales assistant who served us and x-rayed our feet to ensure a correct fit using a special machine was Mrs Peck. Then it was a highlight of the visit to look at our feet through the screen to see we had correctly fitting shoes! The link with Mrs Peck was then broken for 15 years.

I was lucky enough to go to the Perse School, where the headmaster was Stanley Stubbs (Emma 1930), who unusually for the times had worked in industry (Wedgwood). He was totally committed to and succeeded in getting the best university place for his pupils. Knowing I wanted to be an engineer, his words were simply 'Brookes, you will apply to Emmanuel'.

So to Emmanuel College I applied in my seventh term in the sixth form, and was interviewed by D G T Williams as Senior Tutor and John Reddaway, just before the latter took a year's sabbatical. I have little memory of the interview except being quizzed as to why my pure mathematics A-level result was worse than my applied mathematics (I enjoyed applied maths much more) and being told to take the entrance examination and given the application form. The fee was seven guineas, and it was the first cheque I ever wrote. The Cambridge entrance examinations were interesting and stretching, as they should be. In the last post before Christmas of 1969 I received my offer from Emmanuel; what a Christmas present!

Leaving school in December 1969, I worked at Tube Investment's research laboratories at Hinxton Hall to get the two

requisite periods of industrial experience needed for the engineering tripos. I did ask John Reddaway (whom I then vaguely knew through Perse connections) about any preparatory work and he suggested three books to get and to buy drawing instruments through the engineering department, which I still possess.

I arrived at Emmanuel in October 1970, to be greeted by Peter Spreadbury as engineering Director of Studies and settled in to what was then J4 in the Hostel. The one snag with the set was the noise from traffic in the bedroom, but college did fit double-glazing. At the Societies Fair I joined the Engineering Society, the Railway Club and a political party, but never took an active part in any of them. My main focus was CUOTC, where I joined the Royal Engineers wing and was in March 1973 commissioned into the RE Territorial Army, in which I subsequently served for over 30 years, ultimately as a lieutenant colonel.

In my first year Robert (Bobby) Gardner died and I had known him through Trumpington Church. I was slightly dismayed that far fewer attended his memorial service in chapel than did the Christmas carol service shortly afterwards.

I believe I worked hard at my studies and apart from CUOTC (one evening a week and possibly one weekend a term maximum) did little outside study apart from chapel twice a Sunday, but I found it very hard and in my three years got a lower Second and two Thirds. My supervisor said that to get to Cambridge was testimony enough and I believe in retrospect he was right. Frankly I was now among the brightest in the country and while I may have been at the top of the class at school, I was now towards the bottom at college. Possibly I did not relax enough, but it was hard work and a struggle at times.

From an accommodation perspective in those days it was necessary to spend one year 'out of college'. I opted to go out in my second year to ensure being 'in' in the critical third year. Being local to Cambridge, I knew Leslie Barton in the Porters' Lodge and through him came to know Mr Peck, also a porter, and to learn of Barnwell Hostel as being treated as being 'out', so applied to go there, where his wife was the supervisor. To keep her hand in, Mrs

Peck also acted as my bedder, in her green nylon coat. I hope I made life easy for her as I always tidied up after myself. When my parents came to see me, my mother immediately recognised Mrs Peck from Thrussels days and the friendship developed. She looked after us very well, was politely firm and expected no nonsense, but went out of her way really to nurture us. Many is the cup of tea we enjoyed in her lounge and the door was always open. One of my friends had some family difficulties at the time and she could not have been kinder, and when I took to my bed with a very bad cold, she soon had my mother on hand to remove me to Trumpington for 48 hours to ensure a swift recovery. At the time, the Pecks' son was one of the college gardeners, priding himself on the way he cut the stripes in the grass.

In our first year we had dinner in formal hall, at the same seats every night sitting against the northern wall in the middle rank of tables, served by Vi. Though not a requirement, we tended to do so in our second and third years as well. There was an altruistic reason. For the main course the meat was plated, but we could help ourselves to as much potato and vegetable as we could eat. We did just that as I was still growing. Though not a scholar or exhibitioner, the Head Porter once called on me to say grace. One night Vi came to us and said they had run out of meat, but we could have steak or two trout! I chose steak.

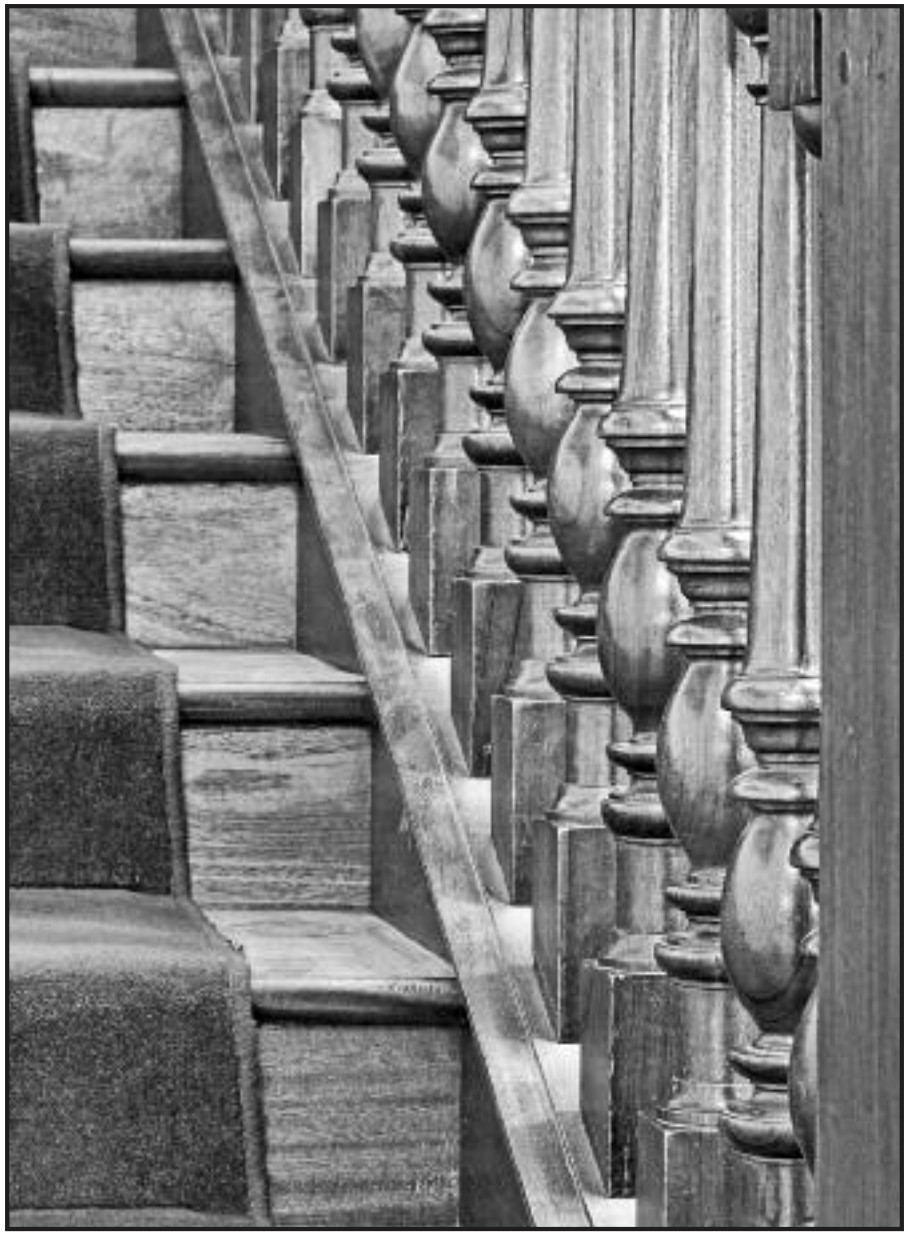
Our friendship with Mrs Peck endured for many years after I left college and she retired, and I periodically visited her, always sending her a postcard from any holiday I took. She commented about the amount of script I got on the card! Her husband had been ill a long time previously I believe and ultimately she was widowed, but I stayed in touch, possibly even addressing her as Phyllis then!

For my final year I returned to South Court to take the thermodynamics and applied mechanics option, Dick Haywood (of steam tables fame) said it was the toughest option so possibly I should not have taken it, but the subjects interested me. The diesel donkey pump keeping the excavations for the college library extension dry kept us awake until an electric pump was installed.

As the time came to look to a post-college career, I resisted attempts by CUOTC to seek a regular commission as I knew I wanted to work in manufacturing engineering and so applied to a number of companies on the 'milk round', as it was called. Fate dealt me a better hand and for this I must be eternally grateful to John Reddaway. He realised that I could benefit from a better start than most graduate engineering apprentices and said 'Go and see Sharman'. Mike Sharman ran a totally revolutionary one-year post-graduate course for aspiring manufacturing engineers based in the engineering department, which John Reddaway had developed. It lead to no qualification except that Mike Sharman, with the assistance of leading companies, put you through a very stringent broad-based, mentally and physically challenging course and the students went on to flower in industry. With a likely third-class degree I could not get a grant, so he sent me to British Leyland, who he basically persuaded to fully sponsor me for the 12 months. Mike became a life-long friend to whom I am also eternally grateful. At his requiem at the Institute of Manufacturing, I spoke shortly after John Reddaway.

The education and training I received at the Perse, Emmanuel, and the engineering department enabled me to have a very fulfilling career working in areas I had never even dreamed about and on challenging and innovative projects. To John Reddaway and Mike Sharman I am grateful for putting their trust in me. I do not think I let them down. When I spoke at the college engineering dinner a few years ago I concluded 'I did not get a First, nor an MBA, but neither did Churchill!' I am the only soldier to date and probably the only college member who has been awarded the Merchant Navy medal!

Edmund Brookes (1970)



News

Fellowship Elections

The college has made the following fellowship elections:

Daniele Cassese writes: I completed both my undergraduate degree and masters in economics at the University of Siena, Italy, where I also started my PhD. I moved to Cambridge in 2012, initially as a one-year visiting student at the department of mathematics and at Christ's College, which I then managed to extend until the completion of my PhD. During this period I was also a teaching associate at Queens' College. I started my post-doc at the University of Namur, Belgium, in 2016 and moved to the Oxford Mathematical Institute in 2017.

My research focuses on complexity, read through the lens of networks: I study how connectivity influences dynamical processes, in particular trade, epidemic spreading and natural selection. In my dissertation I proved the conditions under which cooperation prevails in evolutionary games and proved a version of the Second Welfare Theorem for networks in an Edgeworth barter process. I am also interested in topological data analysis, and during my post-doc I investigated the creation of knowledge in mathematics through the investigation of co-occurrence relations between concepts in mathematical articles using persistent homology.

As Mead Research Fellow at Emmanuel I will publish the articles I am writing and advance my research agenda. In particular I am working on models of dynamics on higher-order structures (networks where interactions are not just between couples of agents but also groups of several dimensions). Moreover, I am interested in exploring inequality in a network perspective, in terms both of mathematical models and also of data analysis using persistent homology.

I have always been an avid reader and this remains one of my favourite activities during my free time. I used to play the piano and my mid-term plan is to start playing again properly.

Koji Hirata writes: Originally from central Japan, I studied law and political science at the University of Tokyo as an undergraduate. I first came to the UK to do my MPhil in history (on a Rotary scholarship) at the University of Bristol, where I began to study modern Chinese history. I then spent several years in Taiwan, China and Russia, studying the Chinese and Russian languages, before moving to California to start my PhD in history at Stanford University. My research is in modern China, Japan and Russia, with broader research interests in the global history of capitalism and socialism. I finished my PhD in September 2018.

My current book project, *Steel Metropolis: Industrial Manchuria and the Making of Chinese Socialism, 1916–1964*, draws on archival documents and interviews in Chinese, Japanese, Russian and English to chronicle the rise and fall of one gigantic steel-making company, Angang, in the city of Anshan in Manchuria (north-east China). During the early years of the People's Republic of China (PRC, 1949–), Angang produced half the nation's steel, and epitomised the Chinese communists' efforts to remodel China by transplanting Soviet economic planning and industrial technology. This story of socialist fraternity, however, is complicated by the origins of Angang in the Japanese colonial project in Manchuria before 1945. My work attempts to make sense of this fraught and sometimes contradictory history by tracing the evolution of Angang under the Japanese empire (1916–45), Soviet occupation forces (1945–46), China's nationalist government (1946–48) and the Chinese communist party (1948–). Throughout this history we see how a global flow of ideas, technology and know-how encompassed not only state-socialist regimes such as the PRC and the Soviet Union, but also capitalist regimes such as imperial Japan,

nationalist China and even the United States. Moreover, my approach also explores how people actually experienced socialism in their daily work and lives.

During my Research Fellowship at Emmanuel, in addition to completing my book manuscript, I also intend to start a new research project on the history of the Sino-Russian borderlands in the nineteenth century, so I plan to continue my study of Manchu and to begin to learn Mongolian.

In my free time, I enjoy walking, swimming and watching movies (my book title was taken from Fritz Lang's 1927 sci-fi film). Thanks to my Shanghai-born, kindergarten-age son who refuses to learn Japanese or English, I know more Chinese names of Marvel superheroes than any of my fellow sinologists.

Matthew Leisinger writes: I received a BA in philosophy from the University of Western Ontario (in London, Canada) and a PhD in philosophy from Yale University. My research focuses primarily on early modern (seventh- and eighteenth-century) European philosophy. In my dissertation, 'John Locke and the demand for self-determination'. I developed a new interpretation of the relation between reason and desire in Locke's account of freedom, motivation and personhood. Some of my current work concerns Locke's explanation of self-control, his account of how judgment is involved in motivation and the ontological status of Lockean persons.

During my time at Emmanuel, I plan to begin work on my next project, which will focus on one of the college's distinguished members. Ralph Cudworth matriculated at Emmanuel in 1632 and was elected a Fellow in 1639. He went on to be appointed Regius Professor of Hebrew and Master of Clare Hall (both in 1645) and then Master of Christ's College (1654), a position that he held until his death in 1688. While Cudworth is best known for his boldly-titled magnum opus, *The True Intellectual System of the Universe*, my project examines his less well-known (because largely unpublished) manuscripts on free will, in which he developed a radical new psychological framework in order to defend and explain the existence of human freedom and moral responsibility. While the manuscripts are full of philosophical treasures, I am particularly interested in what Cudworth had to say about the reflective structure of the mind, the ontology of personhood, the distinction between intellect and will, and the nature of moral knowledge and motivation.

I grew up in northern British Columbia, Canada and have retained both a love of the outdoors and also an appreciation of cold weather. I enjoy long walks and hikes spent looking at birds and trees. I spend a good deal of my remaining time and energy contemplating and cooking (mostly vegan) meals.

Scott Melville writes: Describing the world around us, in an accurate and useful way, is the central goal of science. However, there are many things in our world that we cannot directly see or measure. In physics, we face this problem every day: there is a microscopic realm of small-scale unknowns, which somehow gives rise to the macroscopic world around us. My work builds connections between our large-scale macroscopic measurements and the underlying microscopic structure at work. This allows us to improve our phenomenological models and to understand better the fundamental laws that govern our universe.

The technical term for these techniques is 'effective field theory': a set of rules that allows one to make reliable calculations in the absence of certain information. For example, the world of our everyday experience is very small compared with galaxies, but large compared with atoms. This allows us to describe the flow of water in a pipe without following the motions of its individual particles or of distant celestial bodies.

My Research Fellowship at Emmanuel is an opportunity to apply these techniques to some of the most important open

questions in theoretical physics, such as how gravity (which we understand on large planetary scales via Einstein's General Relativity) affects individual atoms (which we understand on microscopic scales via quantum mechanics).

Many years ago, I grew up on the south side of Glasgow, forming fond memories of playing high school basketball and learning to make fireworks. After successfully not burning down my high school, I moved to the University of Oxford (which I did very nearly burn down, one reason I am now a theorist), where I completed my master's degree in physics.

The 2017–18 von Clemm fellowship at Harvard University then allowed me to stay in the US just long enough to fix my Scottish accent, before returning to the UK to take up the President's PhD scholarship at Imperial College London (there's only so many times one can lose to basketball-savvy Americans before one yearns for the British Isles).

I enjoy rambling (both in hills and with words), and can often be found outdoors, playing basketball, or cooking and eating good food.

Pallavi Singh writes: My long-term research aim is to carry out high quality research that has agricultural relevance. Nine-point-five billion people are projected to live on the planet by 2050. Thus, feeding this massive population with minimal environmental perturbation is a daunting challenge to humanity. As a plant scientist from India, the second largest rice-growing nation, I am truly aware of the problems faced by rice farmers and so wish to make a positive difference in their lives via rice research. Despite being a global food staple, rice uses an inefficient version of photosynthesis, known as C3 photosynthesis. This inefficiency arises from a poor CO_2 acquisition process. Some plants have overcome this with a more efficient photosynthetic mechanism termed C4 photosynthesis. Converting rice to use C4 photosynthesis is expected to increase yields by around 50 per cent and also to enhance efficiency of use of water and nitrogen.

With this in mind, I moved to Cambridge in 2017 to take up a position of a post-doctoral research associate in the department of plant sciences. My current research focuses on elucidating the regulatory networks governing C4 photosynthesis. The aim of my work is to understand better the evolution of the C4 pathway such that in long term this metabolism can be integrated into rice.

My interest in rice has a long history. This journey started in India, during my PhD, which focused on understanding the mechanisms imparting flooding tolerance in rice. The results of my PhD provided a mechanistic understanding of submergence tolerance in rice that is now being used to inform the deployment of this trait in breeding programmes. I later moved as a post-doctoral associate to Cornell University, Ithaca, USA, where my research focused on the interaction of rice with its bacterial pathogen *Xanthomonas* and on understanding the role of transcription activator-like (TAL) effector proteins during this interplay. My study identified the role of TAL effectors in bidirectional transcription, which contributed to pathogenicity in rice.

In addition to research, I am involved in a number of departmental activities. As part of the post-doctoral committee at the department, I am in charge of organising the departmental seminars. I am also a part of the global food security initiative and organising an annual event of a two-week-long visit by African researchers to the department. I am also an advocate of public engagement and outreach, and participate in 'Science on Sundays' talks at the Cambridge University Botanic Garden. I am a STEM ambassador and strongly believe in encouraging inspiring and nurturing young students to achieve more and progress further in science, technology, engineering and mathematics. I enjoy engaging in inter-disciplinary discussions and am looking forward to interactions with the members of Emmanuel.

In my spare time, I like getting outdoors in nature, walking, hiking and cycling. I have a keen interest in calligraphy and like practising some ancient scripts. I am also an avid fan of cooking and am currently testing my baking skills.

Fellowship News

NEWS OF THE FELLOWS

Anurag Agarwal, who has been promoted to a Readership in Acoustics and Biomedical Technology, received extensive press coverage for the research, led by him, on what causes the sound of a dripping tap.

Alex Archibald took part in ACSIS's aircraft field campaign to the Azores and the north Atlantic, making measurements of the composition of the atmosphere from the UK and around the north Atlantic.

Alan Baker has written a book on the historical geography of library associations in nineteenth-century France. His research in the archives of nine widely separated départements was published in April 2018 by the Royal Geographical Society as *A French Reading Revolution? The Development, Distribution and Cultural Significance of Bibliothèques Populaires, 1860–1900.*

Patrick Barrie has been elected a Fellow of the Royal Society of Chemistry.

Charlotte Bentley won the 2018 SDN publication prize, which is awarded annually for the best journal article published by a post-graduate student, or an early-career researcher who has not yet entered his or her first permanent full-time post.

Lionel Bently has discussed in the *New York Times* copyright law in Europe, and in the arts media has commented on UK museums' right to charge for photographs of out-of-copyright work.

Peter Burke has published two volumes of collected essays, *Identity, Culture and Communications in the Early Modern World* and *What is History Really About? Reflections on Theory and Practice.* He has also published *Knowledge Culture and Society*, based on a course of lectures at the National University of Colombia at Medellin in 2015.

Johannes Carmesin has been appointed to a post at Birmingham University.

Don Cupitt in 2016 published *Ethics in the Last Days of Humanity*, his final book, and is currently making a new film for the Sea of Faith network.

Clara Devlieger has been appointed to a post at the London School of Economics.

Pavel Gola has been appointed to a post at Oslo University.

John Harvey discussed his books *Clothes* and *The Story of Black* on BBC Radio 4's programme *Thinking Allowed* on 25 April 2018, which covered the 'menswear revolution'.

James Hillson's research into Gothic architecture has involved him in advising on the production of a digital model for the Virtual St Stephen's Project https://www.virtualststephens.org.uk/

Phil Howell has been promoted to a Readership in Historical Geography. Drawing on his work on the cultural and historical geography of dogs in Victorian Britain, he discussed pets, how we interact with other species and how this has been represented in art and literature, on BBC Radio 3's *Free Thinking* on Thursday 23 November 2017.

A girl, Freja, was born to **Simone Kotva** and her husband Simon Jackson on 31 May 2018.

Alex Jeffrey was awarded one of the 2018 Pilkington Prizes for excellent teaching. He gave a speech at the Council of Europe in Strasbourg at the thirty-third session of the Congress of Local and Regional Authorities in a debate about the future of elections in Mostar, Bosnia and Herzegovina.

Finian Leeper has been promoted to a Readership in Biological Chemistry.

Robert Macfarlane is currently holding a British Academy Mid-Career Fellowship and is using the time to complete *Underland*, an

exploration of underworlds real and imagined. His book *The Lost Words* was published in October 2017 and was featured at the Cambridge Literary Festival in April 2018.

A girl, Sakura Aurora, was born to Victoria, and V**inesh Maguire-Rajpaul** on 22 August 2018.

David Maxwell has been appointed St John's Visiting Scholar in Religion 2018 at the Victoria University of Wellington, New Zealand, where he will lecture on world Christianity. He will also give a public lecture and take a postgraduate workshop at the University of Otago, Dunedin. His *Relocating World Christianity: Interdisciplinary Studies* was published in September 2017.

Aja Murray has been appointed to a post at Edinburgh University.

Catherine Pickstock has been elected as the next Norris-Hulse Professor of Divinity.

Thomas Sauerwald has been promoted to a senior lectureship.

Jon Simons delivered a Friday Evening Discourse at the Royal Institution in London on the subjective experience of remembering. A video of the lecture is available at: www.youtube.com/watch?v=h-2vuT1fRbw&feature=youtu.be. He has been named a Fellow of the Association for Psychological Science, recognising his sustained outstanding contributions to the science of psychology.

Geoffrey Smith's laboratory delivered the Marjory Stephenson Prize Lecture at the annual conference of the Microbiology Society in April 2018. It has also been recognised by the invitation to deliver the 2018 University of Minnesota-Mayo Clinic Lectures in Virology and Gene Therapy. They were also awarded a three-year project grant from the Medical Research Council to 'Use viruses to study kinesin-1 recruitment, regulation and function'.

Kate Spence has discussed a newly discovered chamber in the Great Pyramid of Giza in many media outlets.

Nigel Spivey published in the summer of 2018 his monograph, *The Sarpedon Krater: Life & Afterlife of a Greek*.

Mark Thomson became on 1 April 2018 the executive chair of the Science and Technology Facilities Council, which is one of the councils of UK Research and Innovation. In March 2018, he hosted the International Committee for Future Accelerators in the college, bringing together 40 leading figures in particle physics to discuss the status of the planning for the next generation of particle accelerators, with the focus on the international linear collider, which is being considered by Japan.

Rosy Thornton's book *Sandlands*, a collection of short stories that capture perfectly that the past and present are separated only by a thin screen, published by Sandstone Press 2016, was shortlisted for the New Angle Prize for Literature in August 2017.

Vikas Trivedi has taken up a post at the European Molecular Biology Laboratory in Barcelona.

Florin Udrea, Professor of Semiconductor Engineering, was the joint winner, with Professor Julian Gardner of the University of Warwick, of the Royal Society Mullard Award 2018. The medal is given to academics who have contributed excellence to natural sciences, engineering or technology. It was awarded to them for their company Cambridge CMOS Sensors, which develops sensors for air quality and structures for infrared applications. He also received one the Vice-Chancellor's Impact Awards in 2018.

Nick White has been promoted to a Professorship of Nineteenth-Century French Literature and Culture.

Christopher Whitton has co-edited with Alice König *Roman Literature under Nerva, Trajan and Hadrian: Literary Interactions, AD 96–138*.

Emma Yates married Wesley Sukdao in the College chapel on 14 April 2018.

Tobi Wauer, who won the Empiris Award for Brain Research, has been appointed to a Sir Henry Wellcome Fellowship initially in Cambridge, during which time he will continue in Emmanuel as a Bye-Fellow and then at Harvard.

Penny Watson has been elected President of the European College of Veterinary Internal Medicine (the European specialist college for the veterinary equivalent of consultant physicians).

Ayşe Zarakol's book *Hierarchies in World Politics* was published by CUP in September 2017.

NEWS OF FORMER FELLOWS

Tom McLeish has been appointed Professor of Natural Philosophy in the Department of Physics at the University of York.

Geraint Thomas has taken up a college lectureship and Fellowship at Peterhouse.

Bob White was awarded the gold medal of the Royal Astronomical Society in March 2018 for a lifetime of distinguished achievement in solid earth geophysics.

Chloe Zadeh is now a lecturer in Ethnomusicology at the University of Manchester.

NEWS OF HONORARY FELLOWS

David Drewry writes: 'I have been engaged busily in the first few months of last year as vice-president of the European University Association based in Brussels and as chairman of its research policy working group, until I stepped down completing the second of two four-year terms. This had involved me coordinating contributions to the European Union's forthcoming Framework Programme (FP9), advocating the EUA's energy platform for European universities, promoting universities as pivotal players in regional development and supporting blue skies research funding through the European Research Council. In December I took on a new role

as non-executive director for the UK commission for UNESCO, with an overview of the natural sciences. I have been travelling and lecturing on a variety of environmental issues in Europe, the Middle East and Hong Kong/China. For the year from April 2017 I have spent much time accompanying my wife, Gillian, who is High Sheriff of the East Riding Yorkshire. This has been a fascinating and humbling experience, meeting numerous individuals and groups who are supporting voluntarily their various local communities.'

Drew Faust stepped down as President of Harvard University on 30 June 2018.

Jane Ginsburg writes: 'The past year has been professionally and personally eventful. I continue to work on the section on sixteenth-century Vatican documents for Professor Lionel Bently's University of Cambridge-AHRC website, 'Primary sources in copyright: 1450–1900', and at the other end of the spectrum, gave a lecture in January at Trinity College Dublin on my current research in copyright and artificial intelligence. My daughter, Clara Spera (MPhil, Caius) was married to Rory Boyd (BA, King's), with many Cambridge friends in attendance at the wedding party in St Andrew's, Scotland. Finally, I became a grandmother: son Paul is the father of Lucrezia Mary Spera, born on new year's day in Paris, France.'

Chris Husbands was awarded a knighthood in the Queen's 2018 birthday honours for services to higher education. He now chairs the Higher Education Statistics Agency and the Doncaster Opportunity Area Board (a shiny government initiative to raise aspirations and performance in Doncaster), and continues to chair the Teaching Excellence Framework.

NEWS OF BYE-FELLOWS

Sarah d'Ambrumenil discussed the #BreakingTheSilence campaign, on *Women's Hour* on BBC Radio 4 in February 2018. She was speaking, in her role as head of the Office of Student Conduct at the university, on the anonymity of those reporting sexual

misconduct and harassment, and on what the university has learned.

Richard Latham sang the role of Pilate at the Barbican on Good Friday 2018 with the Academy of Ancient Music. He also appeared as a soloist in Bach's *Christmas Oratorio* with the Australian Chamber Orchestra.

Javier Ortega-Hernandez has commented in various media about his recently published co-authored paper on a new-found beast that may change scientists' understanding of the behaviour of some of the early Cambrian period animals.

Paul Wilkinson was awarded one of the 2018 Pilkington Prizes for excellent teaching. He has discussed in various media outlets whether teen suicide risk can be lowered with intense team-based therapy.

Stephen Barclay and **Anna Spathis** (1987) were awarded a Vice-Chancellor's Public Engagement with Research Award.

News of Members

'Once a member, always a member'. We are always grateful to receive information about members of the college, either from themselves or from others. Information about careers, families, various pursuits, etc, as well as degrees, honours and distinctions, are always of interest to contemporaries as well as forming an invaluable archive of the lives, activities and achievements of Emma members. It is helpful to have your year of matriculation and to have the news given in such a way that it can be entered directly into our 'News'. Please do not feel that such information is 'boastful'. News may be sent by email to records@emma.cam.ac.uk or by using the form at www.emma.cam.ac.uk/. We take every possible care to ensure that the information given is correct, but we are dependent on a variety of sources and cannot absolutely

guarantee the accuracy of every last word and date. Any corrections and additions will be welcome. We print below news that has been received up to 31 August 2018.

1951 **Jacob Gubbay** will be entering a retirement village at the age of 89.

Derek Prime published *A Good Old Age: An A-Z of Loving & Following the Lord Jesus in Later Years* in March 2018.

1952 **Michael Simmons**' most recent book *Double Exposure* was published by the Book Guild on 6 June 2018.

Alan Wilkins has published *Roman Imperial Artillery: Outranging the Enemies of the Empire*.

1954 A**llan Brown**'s 2016–17 olive crop was a write-off because all the olives were infected by an insect called 'Dakos'.

Graham Tottle has written his third novel, *The Llareggub Bypass*, fighting Gwynedd County Council's attempt to drive a bypass through his village. His other books include *Point of Divergence*, *2040* and *Post-Colonial Hokum* (available on Amazon).

1959 **Michael Hole** was the UK dragon boating steersman from 1984 to 2006.

1960 **David Lawson** published *Ostrava and its Jews: 'Now No-one Sings You Lullabies'* in May 2018 by Vallentine Mitchell.

1961 **Graham Riches**' most recent publication, *Food Bank Nations*, is published by Taylor & Francis.

(Alan) Will Wyatt's book, *Oxford Boy: A Post-War Townie Childhood* was published in February 2018 and is about his being brought up in one great university city in a very non-university family. It ends when he ceases being an Oxford boy and become a Cambridge man at Emmanuel (see pp 236-241).

1962 **Michael Cheesebrough** is now fully retired and enjoying life in Edinburgh

1963 **Jeremy Holloway** was awarded the 2018 Linnean Medal for Zoology by the Linnean Society of London, and a Forum Herbulot Certificate of Appreciation for 'outstanding lifetime achievements in biodiversity and biogeography research on Lepidoptera, particularly Geometridae'. Forum Herbulot is an international consortium based in Munich and focused on the study of Geometridae, a family of moths becoming increasingly important in biodiversity studies and environmental monitoring.

Peter Reason's *In Search of Grace: An Ecological Pilgrimage* explores 'themes of ecological pilgrimage: the overall pattern of separation from the everyday, venturing forth and returning home'. The book was published by Earth Books in 2017.

1966 **Jonathan Such** is a life-long marathon runner who has recorded accurately every mile run in his 44 years' running career. It now totals 106,000 miles; he is one of a small group of athletes world-wide who has achieved this and is recognised on the website 100Klifetimemiles.com. This has required Jonathan to average over ten km a day, seven days a week, 52 weeks of the year for 44 years.

1967 **David Hughes** has published 'Harry Bilson Howe, first junior warden of the Holmes Lodge and third worshipful master, First Z of Holmes Chapter, Primus Master of the Lodge of Gratitude, hosiery maker, and Leicester's own James Bond, or maybe Richard Hannay' in the *Transactions of the Leicestershire and Rutland Lodge of Research*, no. 2429 at pp. 82–92. He has also been reappointed as the Provincial Grand Orator for the Masonic Province of Leicestershire and Rutland. The task of the orator is to prepare talks and addresses on aspects of masonic history, philosophy, practice and ceremony. He has created over 30 such talks over the last two years in which he has been in office. He writes:

'I have been busy with masonic research and anyone interested in the issue of masonic research and/or the Neo Platonists is welcome to contact me via the college. I think that the Neo Platonists had much to do with the arguments for toleration and acceptance within society. Indeed, I believe that they were instrumental in persuading Oliver Cromwell to allow the return of Jews to England, and Jews were certainly admitted into freemasonry from the earliest years of the eighteenth century. The Neo Platonists were also much concerned with emblematic symbolism, and freemasonry is a 'system of morality veiled in allegory and illustrated by symbols".'

Garry Martin has recently published *Of Love and Gravity*, which unravels the tangled alliances made between men and women, nature and art. In it, a passionate young painter, Laurie McPhee, is so engrossed in trapping the moments of wonder on the Hebridean islands of his home that Valerie, his new wife of barely a year, leaves him alone with his little pieces of land, eventually to marry her tutor, the mature and urbane Iain Stewart, the painter's mentor and agent. Iain is nervous in his possession, especially when he sees the Island Books, a vivid account of the Eden-like existence lived by his young wife and his protégé on the tiny island of Oronsay. Anxious that he must have been a disappointment to Valerie, Iain seeks the truth in their shared pasts and possible futures but finds only contradiction and illusion.

Garry appeared at the Derby Book Festival in June 2018 in the event 'Being there – a sense of place in the novels of G J Martin', in which he read extracts from several of his novels in which context, of either city or landscape, forms an essential element in the meaning of the book. The places explored ranged from the inside of the dome of St Paul's cathedral, 1920s Paris, Iraqi Kurdistan immediately after the first Gulf War, to the tiny Hebridean islands of Colonsay and Oronsay. He hoped to show that 'being there', in a convincing and vivid place, is at the heart of the experience of reading.

Further to his book *The Jews of Cornwall – A History* (Halsgrove 2014) **Keith Pearce** has published *Lemon Hart of Penzance* (Penlee House 2018), the story of a Jewish wine and spirit merchant who was a supplier of rum to the Royal Navy.

1969 **Samuel Lieu** has been elected president of the International Union of Academies (UAI: Union Académique Internationale) from 2017 to 2021. He is the second Australian scholar and the first Academician of Asian descent to hold the prestigious post in the 98 years of UAI's history. In October 2018 he was elected a Bye-Fellow of Robinson College.

1970 **Sean Byrne** published the first part of his autobiography *My Life on a Stick: Transport of Delight* in 2018.

Leon Lewis runs a vegetarian catering business, and in 2018 catered for a variety of UK folk festivals.

1971 **Rob Foxcroft** has recently published *Feeling Heard, Hearing Others*, a book about empathy and self-empathy; about the edge of the unknown, where something new may come.

1976 **Ian Ward** was the co-author of *Rook & Ward on Sexual Offences: Law & Practice* (fifth edition), June 2016.

1978 **Richard Powell**'s translation of *Against All Odds: Leading Nokia from Near Catastrophe to Global Success* by Jorma Ollila & Harri Saukkomaa, was published in 2016 by Maven House.

1979 **Paul Fellows**, following an interest in astronomy from the age of 13 onwards, through being a keen member of CUAS at Emmanuel, and with his continuing connection with the university where he presents the public astronomy evenings, has recently been commissioned by Cunard Line to speak on the subject on board their ships. So far he has done four voyages for them, taking him all around the world including some fantastic views of the night sky at sea. The Captain has an 'astronomy' button on the bridge that kills all the top-deck lights ... and the result when away from land is awesome. He writes, 'Who would have believed that the shy 18-year-old nat-sci fresher at Emmanuel would end up doing public speaking!'

Stephen Todd married Yoko de Souza on 4 August 2018 in the college chapel.

1983 **Farah Ramzan Golant** (née Golant), former chief executive of *Girl Effect*, has been appointed CEO of Kyu Collective, a collective of creative companies that will collaborate to harness creativity to propel the economy and social forward.

1985 **Kate Clanchy** took up the headship of the Yehudi Menuhin School in January 2018.

1986 **Rachel Bridge** has had her seventh book published: *Already Brilliant: Play to Your Strengths in Work and Life*, by Piatkus in March 2018. Rachel is the former Enterprise Editor of *The Sunday Times* and now writes books about personal development, smart thinking and entrepreneurship.

1987 **Anna Spathis** was recently awarded a Vice-Chancellor's Public Engagement with Research Award, jointly with Stephen Barclay (Bye-Fellow).

1988 **Karen Attar** edited an illustrated history of the Senate House Library with Christopher Pressler, published in 2012 by Scala Publishing, and re-released in 2017.

1989 **Rana Haddad** published *The Unexpected Love Objects of Dunya Noor* in April 2018.

1990 **Ariane Crampton** married Mike Ertl in 2017 and is a proud parent of two stepchildren aged 19 and 22 in addition to her 15-year-old daughter. Ariane left local government in 2018 after 19 years in a variety of roles and is now working at Salisbury Cathedral as Director of Learning and Outreach.

1992 **Alice Strang** has edited: *A New Era: Scottish Modern Art 1900–1950*.

1995 **Cordelia Fine** was awarded the Edinburgh Medal in April 2018. This medal is awarded to 'men and women of science and technology whose professional achievements are judged to have made a significant contribution to the understanding and well-being of humanity'.

Clare O'Neill (née Battersby) had a son, Edward Michael John, on 20 February 2018.

1996 **Dan Chugg** has been appointed Her Majesty's Ambassador to Burma, and took up his appointment in May 2018.

1997 **Mayuko Sano** is now Professor of Cultural Policy in the graduate school of education at Kyoto University.

1998 **Stig Abell** has published his most recent book *How Britain Really Works* by John Murray. It received a complimentary review from *The Guardian* newspaper in May 2018.

Mathieu Candea is a Fellow at King's College and has been promoted to a Readership in Social Anthropology.

Daniel Godfrey's third science fiction novel – *The Synapse Sequence* – was published by Titan Books in June 2018.

Dominic Gould was project manager for the UK Guest of Honour Programme at the Fil Guadalajara (Mexico), the GDL International Book Fair. This was the world's second largest book fair in 2015, featuring around 250 of the UK's leading authors, scientists, academics and musicians including Salman Rushdie, Jeanette Winterson and Irvine Welsh; around 800,000 visitors were recorded over nine days.

2001 **Astrida Grigulis** and Frederic Duclos welcomed a daughter, Ines Arija Duclos, on 3 June 2017.

Angela Laycock has been promoted Sub-Unit Command in the Royal Engineers, managing a Specialist Team Royal Engineers (STRE) who conduct operation design tasks, and a squadron of combat engineers in a regular Royal Engineers Regiment.

2002 **Lucy Lloyd** has recently published *Russian Doll*, by Comely Bank Publishing.

2003 A baby girl, Emmeline Mae, was born to **Clare & Peter Inglesham** (née Hammond and né Inglesby) on 19 December 2017.

Peter Parkes has founded Qualdesk, building software for technology companies to help them carry out better and more effective qualitative research.

2004 **Abi Graham** became European Classic Masters Powerlifting Champion in March 2018, as part of the British Powerlifting Masters team.

2005 A baby girl was born to **Eleanor Fung** at the end of August 2017.

2006 **Matthew Kay** was married in June 2018 to **Amélie Lavenir** (2007)

Richard Power Sayeed published 1997: *The Future that Never Happened* with Zed Books on 15 October 2017.

2007 **Amélie Lavenir** married Matthew Kay in June 2018.

Jeremy Leong and **Clare Anderson** (2008) were married in the college chapel on 28 July 2018

Victoria Nwosu-Hope competed in the 2018 season of *Strictly Come Dancing*.

2008 **Clare Anderson** and **Jeremy Leong** were married in the college chapel on 28 July 2018

Joel Rust has been developing an opera with writer David Troupes, entitled *The Conifers*, which was showcased at the Britten Studio, Snape Maltings in July 2018.

2009 **Claire Brand** was married to Jonathan Porter on 15 September 2018 in the college chapel.

2010 **Matthew Hay** was the expedition leader of 'Grnlnd 2018', a two-man expedition to Greenland's Stauning Alps in May 2018.

Minty Sainsbury won the 2017 Parker Prize, awarded by Art for Youth for creative excellence.

Laurence Smith married Mary Tivey in the college chapel on Saturday 8 September 2018.

2011 **David Hewlett** was one of the team who designed and built the curved structure that formed the centrepiece of Jo Thompson's gold-medal-winning Wedgwood garden at the 2018 Chelsea flower show.

Harry Hickmore has joined Wilton's Music Hall as senior manager.

2012 In March 2018, **Amber Cowburn** was invited back to the TEDxCambridgeUniversity event, to give a TEDx talk on adolescent mental health, based on her work in the re-branding the adolescent mental health system.

2015 **Bobby Seagull**, 2015–16 *University Challenge* captain, (complete with Emma tie and badge) appeared on BBC Breakfast in April 2018 to solve questions and advise on revision alongside Rachel Riley. He and his rival, Eric Monkman, presented *Monkman and Seagull's Genius Guide to Britain* on BBC Two in 2018.

News of Staff

Executive Head Chef & Head of Catering, Matthew Carter, won Best in Class at the 2018 Hotelympia: the UK's market leading hospitality and foodservice event. His menu received a bronze award in the R4 Innovative 4 Course Vegetarian Tasting Menu category, sponsored by Le Cordon Bleu London. His four-course vegetarian menu consisted of: heritage carrot terrine with coriander sorbet, goats cheese mousse with roast onion consommé glaze and pickled mustard seed, poached sweet potato gnocchi with roast artichoke, king mushroom and mushroom cream and apple parfait, spiced apple cake, rhubarb crisp, rhubarb ice cream, rhubarb and pistachio meringue.

The Porters donated a large amount of generous 'gifts' to charities in 2017–18


Emmanuel College Porters' Lodge Charity Fund

2017/18

This academic year the Lodge has donated the following:

£750 to Children in Need

£100 to Prostate Cancer UK

£135 to Cavell Nurses' Trust

£100 to the Poppy Appeal

£250 to 'Rays of Sunshine' to grant magical wishes

£300 to 'Rainbow Trust' in support of Families in Need

£300 in support of the forthcoming Egg Hunt

£100 in support of Cancer Research Trust

Paying Daniel Rudnick £100 to stay silent

Clubs and Societies

ASSOCIATION FOOTBALL CLUB

Men's team

	2017–18	*2018–19*
Chairman	*David Thorp*	*Daniel Remo*
Captain 1st XI	*Daniel Remo*	*Oliver Westbrook*
Captain 2nd XI	*Ed Phillips*	*Callum Swanston & Dan Smith*
Captain 3rd XI	*Jack Deeley*	
Secretary	*Rohan Gupta*	*Ed Phillips*

The men's first team, having retained most of last year's promotion-winning side and welcomed the addition of some strong freshers, kicked-off their campaign in the second division with high hopes. Michaelmas term started with some good performances, including resounding wins over King's and Long Road

Rhona Gupta

Back: Anton Dennis, Toby Lane, Dave Thorp, Peter Welch, Oliver Westbrook, Cameron Miller; Middle: Matt Storer, Alex Mistlin, Patrick Edwards, Simon McGuirk, Will Summers, Alex MaBe, Mojo Odiase; Front: Dan Remo (c)

Sixth-Form College, the latter of which saw one of our best performances of the season. Emma narrowly lost out against John's in Cuppers, having held a lead for most of the game, but regardless went into the end of the term unbeaten in the League.

Lent term saw an easy 5–1 home victory over Exeter College, Oxford, and the strong form at the start of the season was re-found in the Plate, where we saw off the first division outfit Downing, and thumped Darwin in a run that took us all the way to the final. The final took place in Easter term, where Emma saw off a Selwyn side that had been freshly relegated from the first division, in front of a large Emma crowd. This proved a memorable day, and the team hopes to build on this success and our fifth-place finish next season.

Emma second team had what can only be described as a hot-and-cold season, playing scintillating 2009 Barcelona-like football at our best, and capitulating à la 2008 Boxing Day Hull at our worst: we never found the consistency needed for a push for a title. Still, a finish placed fourth and a run to the Shield quarter-final (when some idiot gave himself the fifth penalty kick and bottled it) represent an overall positive season, with plenty to look forward to next year. We'll be saying a sad goodbye to Emma's only striker Peter Welch, but a replacement should be on the way as after 193 one-on-ones Rohan Gupta finally scored, and should come back in fine form after his year-long training camp in Brazil and Barcelona.

For Emma third team, 2017–18 turned out to be a tumultuous season: full of exciting wins, disappointing losses and games that just left you wanting more. Unfortunately, for some of them what was wanted was more players, not more football, but sometimes that's just how seventh division university sport turns out. The team had some excellent performances in their own rooms, having mastered the hidden game of chicken when defaulting on matches, but this was backed up consistently on the pitch, with some solid tactics, stunning individual plays and great team spirit to bring it all together.

Daniel Remo, *Captain (1st XI) and chairman-elect*

Women's team

	2017–18	*2018–19*
Captains	*Amy Spackman & Tatiana Sherwood*	*Alex Emsley & Oli Liu*

Faced with the loss of half the team through graduation, there was the threat of having to combine with another college this year. However, the Emmanuel women's football team soldiered on as an independent entity, with a keen recruitment drive at the Emma freshers' fair; fortunately we managed to persuade a good number of first-years to join. The season began in the second division, after relegation last year. It set off to a cracking start, with a stunning 5–1 victory against John's/Kings'. Sadly, this was not quite the beginning of the spectacular season we had hoped for. In fact, they happened to be the last goals scored this year, but that didn't stop the enthusiasm of the Panthers.

Despite struggling with numbers as we juggled everyone's hectic schedules, every player turned up to every game with a keen and optimistic spirit. We had several opposition teams commend us for our attitude and friendliness. In one particularly heavy defeat against Magdalene/Sidney Sussex (score not to be printed), the Panthers' stoicism and commitment to fighting on to the end was admirable. Indeed, perhaps our most miraculous achievement of the season was that, despite a goal difference of –29, we came fourth in the division and will be back battling it out in the second division next year!

We would like to thank everyone who played for the Panthers this year for their tremendous energy, dedication and, of course, footballing prowess, from our brilliant beginners to university team star! We wish Alex and Oli the best of luck next year, and hope to see many faces old and new joining them for a victorious season.

Amy Spackman, *Captain*

ATHLETICS AND CROSS-COUNTRY CLUB

	2017–18	*2018–19*
Captain	*Mojowo Odiase*	*Martha Stevens*

This year saw another strong year of Emmanuel athletics despite the departure of many talented athletes including BUCS medallist Bijan Mazaheri.

The athletics calendar started with Michaelmas Cuppers. Wins for Freddie Bunbury and Mojowo Odiase in the pole vault and triple jump respectively helped lead the Emmanuel men to third place. There were also strong performances from Lars Heidrich (200m hurdles), Alex Walsh (2000m steeplechase) and Harry Knill-Jones (triple jump). The women's match also ended with in third place for Emma, largely thanks to a strong turnout of athletes, many of whom were competing in events for the first time. Particular credit goes to Eleanor Brendon, Olivia Rowe and Adrianna Marzec for promising performances in multiple events.

In the Easter term instalment of the competition (formerly CUAC sports), turnout for all colleges was poor and this was no different at Emma. Despite this, there were a few solid

Andy Hodge

Lars Heidrich leading the way in the Alverstones 110m hurdles race

performances and podium finishes were secured in both the men's and women's competitions.

Cross-country Cuppers saw the Emmanuel women finish seventh thanks to strong runs from Amy Radford, Rebecca Oates and Sofia Weiss, whilst the Emmanuel men did not enter a team.

Impressive performances representing Emma led to selections to represent the university for several of our athletes: Martha Stevens, Freddie Bunbury, Mojowo Odiase, Lars Heidrich and Olivia Rowe in athletics and Rebecca Oates, Amy Radford, Eliot Nevil, James Aackland and Sofia Weiss in cross-country.

With so many talented athletes staying on next year, Emma is sure to continue be represented at university level for the foreseeable future; expect big things from Emmanuel athletics in the coming months.

Mojowo Odiase, *Captain*

BADMINTON CLUB

	2017–18	*2018–19*
President	*Kirsten O'Brien*	*Jashmitha Rammanoharnolds*
Women's Captain	*Susannah Lawford*	*Melisha Nash*
Open 1st Team Captain	*Jontie Honey*	*Jontie Honey*
Open 2nd Team Captain		*Malcolm Chadwick*
Treasurer	*Holly Rowland*	*Hamish Kadirkamanathan*

Women's badminton

I have absolutely LOVED captaining Emma women's badminton this year and couldn't have asked for a nicer group of people to train or play matches with! In October we had an influx of new members, from freshers to finalists and from those with experience, to those with none! Emma badminton has a reputation for being fun, relaxed and open to all abilities, something which I think we've definitely kept up this year. Weekly training was shared with the men's team at the Ley's: an opportunity to play rallies or more competitive matches against other members of the club always finished with the exhausting 'Around the World' game!

In Lent term we entered two mixed teams and one women's team into Cuppers, the inter-collegiate knockout competition. Unfortunately, none of these teams made it through to the second round but the high level of participation and enthusiasm was fab.

As far as success in League matches is concerned, this year has certainly been a year of two halves! We started Michaelmas in division 1 (of 3), facing teams with a lot more experience than we had. Although we played some great games, we sadly lost all six of our matches and were relegated to division 2 for Lent term. In Lent term however, (perhaps as result of the arrival of new team stash?!) we managed to win the second division! We won four matches and 33 games, which was just enough to beat Murray Edwards I who won four matches and 32 games! We really enjoyed this division and the variety of pairs within teams: in some matches we dominated and others we had to work hard for!

Post-match photo after playing Jesus team

Over the year, many amazing (sometimes flukey!) shots were played and the yo-yoing between divisions continues, as we'll be back in division 1 in Michaelmas.

The best thing about this year, win or lose, has undoubtedly been the friendly vibe within our team. When playing against other colleges, our not-too-competitive attitude and ability to have a laugh was very evident, especially in our post-match photos, which got more and more impressive/acrobatic each week! Thank you so much to everyone who's played a match this year: Molly Barker, Alex Broadway, Jingwen Alice Fan, Bronwen Fraser, Susannah Lawford, Kirsten O'Brien, Olivia Morley, Mary Murray, Melissa Nash, Emma Nicholls, Jashmitha Rammanohar, Holly Rowland, Khai Khai Saw and Lauren Turner: your funky shots, dedication and humour have made it an absolute joy!

Susannah Lawford, *Women's captain*

Men's badminton

Men's badminton at Emma has been a lot of things this year. We've continued our success from last year when we moved from league 6 to league 4, and we will be starting next year in league 3. For the first time in three years, we managed to get through the first round of Cuppers. And we've had a lot of new faces, a solid group of regulars and training sessions that have seen all of us improve (at least a little bit). Our termly socials were a highlight. But we will be losing some great guys: special mention to Mukunth Raveendran and Benjie Wang, who captained last year and were a constant source of good badminton this year. It's been a privilege to be your captain and to give out man-of-the-match chocolate bars. For next year, as always, let's smash it, improve and most importantly have fun.

Jontie Honey, *Open first team captain*

BASKETBALL CLUB

	2017–18	*2018–19*
Captain	*Mojowo Odiase*	*Martha Stevens*

This year saw the rebirth of Emmanuel basketball with our reintroduction into the college League. Becoming a great team from scratch was always going to be tough but against the odds we were competitive from the off.

Michaelmas term saw Emma placed in the lowest (fifth) division as a team joining the League system. Our maiden campaign got off to a strong start with a very comfortable 39–25 victory over Pembroke. Kalyan Mitra in particular was impressive, showing off deep shooting range and good leadership. A second victory over Magdalene followed, leaving Emma in a strong position with a finish in the top two guaranteed and a chance of promotion. The third and final game of the League season was a showdown against a very strong Wolfson side, who also boasted a perfect record. It was a close-fought game and Emma led for most of it, but a late flurry saw Wolfson escape with a 39–35 victory. This result meant a play-off against a fourth division team was our last chance at promotion. The opposition's failure to show up meant an automatic 25–0 victory and promotion to the fourth division!

Our second season proved to be as disappointing as the first was promising, with the team often struggling to get a starting five together because of injury and unavailability. A serious ankle injury to our captain in the first game of the season was a big blow to our chances of success. A 34–16 loss to Downing followed by a 41–15 defeat to Wolfson were the only games played in Lent term. The remaining two fixtures were forfeited, resulting in relegation back to the fifth division.

Despite ending in disappointment, it is clear that there is enough talent within the ranks for a positive season next year; with commitment to the cause and bit of luck it should be possible to escape the fifth division for good.

Mojowo Odiase, *Captain*

BOAT CLUB

	2017–18	*2018–19*
President	*Dame Fiona Reynolds*	*Dame Fiona Reynolds*
Captain of Boats	*Megan Armishaw*	*Catherine Gorrie*
Men's Captain	*Tom Garry*	*Tom Eveson*
Women's Captain	*Megan Armishaw*	*Catherine Gorrie*
Secretary	*Rob Peacock*	*Ben Harris*

Women's squad

The year got off to a great start with a very popular Michaelmas term training camp and the formation of two senior eights. Both crews performed well in the Winter Head, with the first boat winning by 15 seconds. Three lower boats were formed, thanks to the brilliant work of the women's lower boat club captains, Claire and Maddy. The novice first eight had a very impressive first two races, winning Emma Sprints and coming third in Novice Fairbairns. The term ended with the Senior Fairbairn cup, the first boat coming a very close second place to Jesus College. All in all, it was a very successful start to the year.

Going into Lent term, another popular training camp provided a fantastic opportunity for some ex-novices to move into the senior boats. The first eight had a successful start, winning Newnham Short Course and coming second in Pembroke Regatta, which led on nicely to a successful and somewhat dramatic bumps. A (tactical) crab enabled an impressive over-bump and a move from eighth to fifth despite only two days of racing because of the icy weather conditions. The second boat retained its seventh place in the second division, and the third boat also over-bumped, moving up three spaces and making the women's total bumps plus six in two days of racing. To finish off the term, both higher boats travelled down to London to compete in Women's Eights Head of the River Race, which was an amazing day of racing, thoroughly enjoyed by all.

The final camp of the year was the largest there has been for a while, with around 70 attending and enjoying the summer evening outings of May term. Every rower on the women's side continued

rowing, and this allowed four competitive boats to be formed. All boats had a fantastic and successful term. The first boat won Bedford Regatta and X-Press Head and rowed over as third on the river during the May bumps. The second boat had an incredible four days, with four speedy bumps awarding the crew their blades. The third boat was successful bumping twice, and the fourth boat put up a very good fight and managed to avoid spoons, despite going down five places. The success of the club wouldn't be possible without the enthusiasm and commitment shown by each and every member, and so I'd like to thank personally everyone for playing their part in ensuring the Boat Club remains the happy, inclusive and supportive family that it is today.

Jeremy Dale

W1 training hard to maintain their place in the top three fastest colleges

Megan Armishaw, *Women's Captain & Captain of Boats*

Men's squad

The year began with a well-attended training camp in Michaelmas term, and the formation of two senior men's eights and three novice eights. Both senior crews performed well in Winter Head and the Fairbairn Cup. The term ended with Fairbairns, with the first boat coming higher again this year at eighth and the second boat coming ninth. The novice crews all came home with very respectable results, a testament to the amazing work by this year's lower boat captains.

After a busy winter training camp helping to integrate the ex-novices with the senior members of the club, and with a couple of

people returning to the squad, Lent term looked to be very promising. Despite a disrupted bumps because of the troublesome weather, the first boat finished up one, but was unfortunately unable to capitalise on its strength because of a shortened week of rowing. The second boat finished the week down one. To conclude the Lent term, both first and second boats travelled to London to compete in the Head of the River Race and appreciated the experience of racing on the Tideway.

The final camp of the year proved to be the most popular in recent years, with around 30 men attending. Those in the first boat were very grateful for the opportunity to race at Bedford Regatta at the start of term, winning the Open VIIIs category. Throughout Easter term four men's crews were in regular training and got onto bumps. With seats in the first boat being highly sought-after, the competition filtered down through the club and resulted in a very strong squad. Bumps week produced some amazing results, particularly for the second eight moving up seven and over-bumping into the second division, enabling them to row in evening hours, a huge training advantage in the years to come. The third eight also had an impressive four days, bumping up each day and earning their blades. The fourth eight finished up three, and the first eight

Jeremy Dale

M2 after moving up seven spaces and achieving their blades on the final day of bumps

retained their position as seventh on the river, with some fantastic racing throughout the week, including bumping Peterhouse in under 80 seconds on the first day.

Thomas Garry, *Men's Captain*

Thank you to the EBCA

The captains would like to take this opportunity to thank once again the Emmanuel Boat Club Association for their never-ending support of the club. The club simply would not function without them, and we are incredibly grateful for their generosity and support which makes training camps, off-Cam races and the amazing standard of coaching possible.

CHAPEL CHOIR

Director of Chapel Music	*Richard Latham*
Senior Organ Scholar	*Hugh Crook*
Junior Organ Scholar	*Marcus Norrey*

The Chapel Choir welcomed many new faces this year and, in particular, our new organ scholar Marcus Norrey, who has seemed to combine an organ scholarship and the medical tripos with alarming ease. Our three new choral scholars are all music students: Megan Webb, Sophie Westbrooke and Jonathan Iceton.

As ever, the Michaelmas term is quite a baptism of fire. A new choir has to be formed in a matter of days and be able to perform at many high-profile services and concerts in no time. The pressure was on as we were due to sing Mozart's *Requiem* at St Martin-in-the-Fields at the end of October. The choir really rose to the challenge and the performance to a packed church was excellent. The Brandenburg Sinfonia played magnificently and three of the four professional soloists were former Emmanuel choir members: Madeleine Holmes (soprano); John Ash (countertenor) and James Savage-Hanford (tenor).

A week later, the choir repeated the *Requiem* to a full chapel, this time with soloists drawn from within the choir: Talitha Kearey, Megan Webb, Alex Ledsham and Connor MacDonald.

Reproducing Mozart's orchestral colours on the organ is no mean feat and our two organ scholars managed brilliantly.

Commemoration of Benefactors saw the premiere of a new anthem dedicated to the choir by Thomas Hewitt-Jones, *O Lord Support us all the Day Long*. This was received well and will, I'm sure, remain in the choir's regular repertoire.

As the end of term approached, I flew to Sydney to perform Bach's *Christmas Oratorio* in the opera house with the Australian Chamber Orchestra and so the Advent carol service and the London carol service at the Temple Church were conducted by Christopher Whitton. It is always a treat for us to sing at the Temple: the generous acoustic and the splendid newly refurbished organ make for an unbeatable venue.

Before the choir headed home for the Christmas break, Hugh took it to his parish church of St Mary, Eastbourne, West Sussex for a concert of Christmas classics. The choir wowed a full church and the audience gave very generously towards the summer tour to Barcelona, for which we were all extremely grateful.

Lent term quickly became busy. In addition to the normal pattern of services, there was a joint evensong with St John's Voices, that college's mixed-voice choir. To sing in such a magnificent space and to hear the full strength of the St John's organ in Dyson in D was an unforgettable experience. The combined choirs made a great sound and it's possible those soprano top As could be heard in Peterborough.

In February we jumped on the train to sing evensong in the great 'ship of the fens', Ely Cathedral. Lenten favourites were on the menu: *Wash me Thoroughly from my Wickedness* and Noble in B minor. The choir sang beautifully, the organ scholars played brilliantly and the cathedral looked after us with warming tea on a freezing, dark afternoon.

After the end of term we headed to Stamford to give a concert of music for Lent and Easter including renaissance polyphony, American spirituals and Vierne's *Messe Solennelle*. St Martin's church is lucky enough to have two organs: a pipe organ and a large electronic Hauptwerk instrument that can be programmed to sound exactly like the organ at Saint-Sulpice in Paris. Hugh and

Marcus were excited to play the Vierne mass in the original scoring for two organs but alas, it was not to be. The composer famously died at the console of Notre Dame and it seemed his ghost came back to haunt us: after just 15 minutes of rehearsing the Gloria there was an alarming BANG from the pipe organ and all went quiet. A few frantic phone calls to the vicar and the organ tuner yielded little and the show had to go on! Luckily the electronic instrument held firm and, credit to the organ scholars, we gave a great performance under rather testing circumstances.

Easter term began with the Reunion evensong. Many former choral and organ scholars came back to the college and raised the chapel roof with choral cracker-jack anthems: Wood's *Hail gladdening Light*; Brewer's Canticles in D and Parry's *Blest pair of Sirens*. It was such a joy to see so many old friends and to hear how important the choir had been to them during their time at college. We all enjoyed a wonderful dinner in hall and gave no fewer than two performances of the unofficial Emmanuel anthem, Wood's *Oculi Omnium*.

To keep minds off examinations, the music list for the remainder of the term was packed full of choral classics. We finished the year in style with some favourite pieces in the repertoire: Mendelssohn *For He shall give his Angels charge over Thee*; Howells *Collegium Regale* setting of the canticles; Harris *Faire is the Heaven*; Rheinberger *Cantus Missae* and Finzi *Lo the full, final Sacrifice*. With a real musical spring in our step and some fizz in our glasses, we headed to our choir dinner.

Unusually, the choir had a very busy May Week. Somehow we managed to squeeze in the auditions for the new Director of Chapel Music and the honorary degree ceremony in the Senate House. This ceremony was quite the spectacle: scarlet gowns, pages carrying trains, trumpets, the National Anthem in a strangely high key, processions, music by Byrd, Stanford and Gibbons, champagne and canapés. All in all, a very glamorous end to the year and an honour to be asked to sing at such a grand university occasion.

And so, it's now time for me to pass my conducting baton to my successor. I have had a wonderful time over the last eight years at Emmanuel and it has been such a privilege to work with such talented students. I would like to thank the Master and the whole

college community for making me feel so welcome and for all their support. I hope the next chapter for Emma choir is a good one; I have every confidence it will be.

Richard Latham, *Director of Chapel Music*

The Chapel Choir tour to Barcelona

On 30 June, the choir departed on our tour to Barcelona. Having arrived in Spain, a short bus journey brought us into the heart of the city, where we would be staying for the next eight days. The next day presented an opportunity for us to explore the city, and in particular the park Guell, which was designed by Gaudi, the famous Catalan architect. This was followed by the first of many trips to the beach, to soak in some of the Mediterranean sun.

The next day was packed with rehearsals during the morning and afternoon, in a local practice studio. The Dean, Jeremy Caddick, arrived that afternoon, in time for our first concert of the tour, which was held in Barcelona Cathedral. The choir sang a very broad repertoire, with highlights including Harris *Faire is the Heaven* and the Howells' *Requiem*. The concert was very well received and it was an excellent start to the tour.

Tuesday morning saw another early start, as we had to travel to Monserrat, which is home to the Santa Maria abbey. Since the monastery is built high up in the mountain, the last part of the journey had to be achieved by cable car. A short period to look around the small town was followed by our second concert, in the abbey. Here we sang *Faire is the Heaven* and Victoria's *Regina Caeli*. After the concert, the choir took the opportunity to sing our college anthem, *Occuli*, to a crowd gathering outside the abbey.

After a busy few days, the middle of the week offered some much-needed free time, which people tended to spend either at the beach or exploring the city. One of the greatest discoveries over these few days became the boqueria, which is a large marketplace off the side of la Ramblas. This became a favourite for many people as a place to visit for lunch.

On the Friday, we had our final concert in La Sagrada Familia, an iconic church designed by Gaudi and not due to be finished

until 100 years after his death. The choir was first given a tour around this magnificent building, so we could find out the meanings behind Gaudi's design. We then performed the Howells *Requiem*, which was so successful that we finished with *Occuli* as an encore. This was our final concert in Barcelona and the choir deserves to be very proud of their performance.

Saturday was our final full day, which ended with a big meal in a lovely restaurant with all the choir together. Everyone seemed to enjoy the evening very much and it was a great way to finish the tour. On the final day we packed and headed for the airport. From there it was just a short flight over to London Southend, where the choir parted ways.

Many individuals are responsible for making the tour such a success. The Directors of Music and Chapel Music, Chris Whitton and Richard Latham, have been an excellent help all year in training the choir, as well as advising on the tour. The Dean, Jeremy Caddick, who joined us for part of the tour, was very supportive of the choir, as ever, and so our thanks go to them. The tour would not have been possible without the generous donations from members of the choir, college or friends and family, and we are very grateful for all their contributions. Finally, a big thank-you to the senior organ scholar, Hugh Crook, who single-handedly organised the majority of the tour and did an excellent job of inspiring the choir and leading the concerts.

Marcus Norrey, *Junior Organ Scholar*

CHRISTIAN UNION

	2017–18	*2018–19*
Officers	*Joseph Adams & Susannah Lawford*	*Dan Byrom & Joel Williams*

From April 2017 to March 2018, Emmanuel College Christian Union was led by Joseph Adams and Susannah Lawford. In Easter term we hosted the traditional weekly rounders matches, playing against students from Christ's and Downing colleges. There were refreshments between innings and a short gospel talk was given.

We also ran a smoothie giveaway outside the library in the exam period to provide a much-needed revision break for members of college.

Michaelmas term in college kicked off with 'SHARE', a three-week course looking at what the bible says about suffering, love and success. A new weekly meeting was also introduced on Monday evenings consisting of pizza and prayer. At the end of term, we hosted mince pies and mulled wine before the CICCU carol services. The services themselves were held over two evenings at the end of November in Great St Mary's church and drew hundreds of students to hear carols, readings, an *a cappella* performance, some spoken words, as well as an address on what Christians believe.

Lent term centred on CICCU's annual events week. This year's theme was 'REAL' and was based on the belief that God, and His love for us is real, and this allows us to be real with one another. The week involved lunchtime and evening talks, which both engaged in people's objections to the Christian faith and invited them to investigate further. Each term we ran a text-a-toastie evening, where students at Emmanuel could request a toastie and an answer to a question about Christianity. Always proving popular, students were very grateful for the delivery service, and many interesting conversations took place as people engaged with the Christian faith. As of April 2018, Dan Byrom and Joel Williams have enthusiastically taken leadership of the group, and all members are excited for the year ahead.

CRICKET CLUB

	2016–17	*2017–18*
Captain	*Ashwin Raj*	*Sushant Achawal*
Vice-Captain	*Sushant Achawal*	*George Milner*
President	*Alex Mistlin*	*Ashwin Raj*

With our Cuppers run to the final still fresh in the memory, this year began as any other does, waiting patiently at the freshers' fair hoping for a new influx of talented cricketers, and we were not

disappointed. With the addition of fast bowlers George Milner, Jake Boud and Thomas Bewes as well as all-rounder Matt Rodgers, early Lent nets began with a palpable sense of optimism about our prospects for the forthcoming season. Strength in depth remained our key asset, with six or seven genuine bowlers all capable of bowling their allotted four overs and a number eight batsman who had averaged over 100 playing for his club side the previous summer. Thus, despite being dealt a tough draw, we approached our group stage fixtures of Christ's, John's and Clare with a quiet confidence that we could we would be able to make a real tilt at the Cuppers glory.

However, in the days leading to our opening encounter against Christ's a spate of illness and injury, most notably to opening bowler Jake, who suffered a season-ending arm break, meant a hunt began for anyone with any semblance of cricketing experience to make up the numbers. Unsurprisingly the Christ's Blue took full advantage of our depleted attack and despite a classy 60 from opener Tom Mckane, Emma slumped to a 45-run defeat. A sudden-death game against last year's semi-finalists John's loomed next and on a sticky pitch at Wilby Emma battled to 120 off the allotted 20 overs, with Mckane and finalist Alex Mistlin the key contributors. With a strong John's side as the favourites heading into the second half, it took an inspired spell of bowling by Sushant Achawal, whose three wickets alongside the ever-reliable Harry Knill Jones and Dan Pope, to drag Emma to an eight-run win. The final group game against Clare was a relative stroll in the park, a very competitive 180 posted by ECCC in the first innings saw us record a 67-run win, which in reality could have been even bigger. After many failed attempts at calculating our net run rate down at the Regal, all we could do was await the quarter-final draw to find out our fate. Yet alas the heavy opening day defeat proved to be our undoing, losing out on qualification on net run rate.

With the disappointment of 11-a-side cricket behind us we turned our attention to the CUCC's inaugural six-a-side tournament at Fenner's, hoping this five-over hit-off might be more our speed. After strong wins against Fitz and Wolfson, John's exacted

some revenge for their Cuppers defeat, by taking a closely fought semi-final. Abhiskek Patel's unorthodox, to put it politely, chinaman proved to be somewhat of a revelation in the tournament. Such was our confidence in our six a-side prowess, only six players made themselves available for the Old Boys' match the following day. Eventually, on the pretence of two free meals, we managed to get ten 'cricketers' out, but we were always behind the game and were battling for a draw for much of the second half of the contest, which in itself was largely only possible because of a 64 from Abhishek. However, even he succumbed to the pressure, with the Old Boys deservedly winning with two overs to spare.

A season not littered with highs on the field was nonetheless a genuine pleasure to be a part of and in the capable hands of new captain Sushant Achawal and vice-captain George Milner I am confident ECCC can return to the heady heights of previous years.

Ashwin Raj, *Captain*

EMMANUEL COLLEGE STUDENTS' UNION

Since taking over at Christmas, ECSU has had a busy year, as ever, which is a testament to the commitment of the fantastic volunteers who make up the students' union. I am very grateful for the time and patience each member has dedicated this year, resulting in many achievements and improvements to college life.

Access – The access bus was organised by our access officer, Rhys Proud. It visited schools in Essex and Sheffield during the Easter break, receiving good feedback from teachers and students. Perhaps ECSU's biggest achievement this year was liaising with college to re-organise pre-payment bills to alleviate the financial strain previously felt by students, and to ensure that the college is financially accessible to all prospective students. ECSU is looking toward updating its access blog and its alternative prospectus with the help of students. For the first time, Emmanuel's access shadowing scheme in Michaelmas term will be directed towards black and ethnic minority students, in a hope to address the institutional shortcomings of access to Cambridge in this area.

Jet Photography

ECSU committee

BME – The BME officer, Jerry Chen, has been instrumental in organising the BME Access Shadowing Scheme, the first of its kind in Cambridge. Jerry has also organised social events for BME students in Emma, from themed formals to cinema trips, and has also organised working groups in Emma to discuss pertinent issues.

Buildings & Services – The buildings & services officer, George Cobley, has had a particularly busy year since it is once again time to regrade all college accommodation in order to determine their price band. George has tried to evaluate what students value in their accommodation in order to assess room grades fairly. The college, of course, has been occupied with the exciting new development in Emmanuel, and I and the vice-president have enjoyed engaging in discussions about how it will cater for students' needs in new ways.

Careers and the Emmanuel Society – Daniel Szábó and Joshua Wharton were our careers officers for this year, and worked closely

alongside me and the Emmanuel Society. ECSU hosted a valuable LinkedIn brunch with JuG Parmar, and liaised with the Emmanuel Society to determine how we can best ensure high attendance at events with members, which students find extremely useful.

Charities – This is a relatively new role on ECSU, and Anjali Gupta exceeded herself in her efforts to raise money via exciting and creative events for three main charities: Jimmy's Homeless Shelter, the Teenage Cancer Trust and Medecins Sans Frontères. Anjali has raised a massive £1300 so far, and she will no doubt meet her ultimate goal of £1500 in the Michaelmas term.

Computing – Matteo Pozzi has worked to alleviate problems related to wi-fi, is working on an ECSU app and has worked with the secretary, Matilda Spivey, to increase the transparency of ECSU by ensuring that minutes are available online.

Disabilities – ECSU's disabilities officer, Anna Ward, has worked to ensure that the college is a more accessible place for those with all kinds of disabilities. Her work has resulted in a new location for the JCR that has step-free access, allowing people with mobility issues to socialise more fully in college. She has also organised social events and is working on a comprehensive guide for students in Cambridge with disabilities.

Emma-Exeter Sport's Day – A special thanks is owed to ECSU's sports officer Stephen Leonard and vice-president Olivia Malmose O'Connor, who organised a brilliant sports day with our sister college Exeter, which was rounded off with a formal. Next year, we look forward to Exeter hosting us in Oxford.

Ents – ECSU's Ents Officers, Ashwin Raj and Mojowo Odiase, have organised some very successful entertainment events in college, from a jazz night to table football tournaments in the bar. They are in the process of organising another event during Michaelmas term.

Green – Given the success of the previous ECSU committee in achieving a gold award in the green impact award scheme, ECSU's green officers – Bronwen Fraser and Isobella Kong – have worked this year to analyse how we can do even more. ECSU will be working with the college to ensure that the new development is as sustainable and environmentally friendly as possible.

International – ECSU's international students officer, Simina Dragoş, has worked hard to organise many social events for international students in the college. These range from a very successful international film week in Lent term, to periodic themed formals throughout the year.

LGBT+ – Emmanuel once again displayed our unique rainbow lights against the chapel for the entirety of LGBT+ history month in February, in addition to flying the rainbow flag. Griffin Twemlow organised many social events throughout the year, from panel discussions to film screenings and a successful charity formal that raised over £200 for the UK Lesbian and Gay Immigration Group. Next Michaelmas term, the college will for the second time fly the transgender pride flag to commemorate Transgender Memorial Week.

ROAR – The editors, Rohan Gupta and Ewan Patel, have graced Sunday brunch with their satirical pieces, which are received well in college. I look forward to more in the Michaelmas term.

Shop – Under the management of Jack Irvine, the ECSU shop continues to stock a wide range of items, and continues to be extremely popular in college, particularly in exam term.

Women's Officer – ECSU's women's officer Lydia Phillips-Lea has worked hard to represent women in college. She has organised Feminist Society discussion groups, researched university sexual assault policy and has also looked into the ways that the student body might celebrate the fortieth anniversary of the arrival of women undergraduates to Emma in a year's time.

Welfare – As a result of the constant efforts of ECSU's welfare officers, Caitlin Campbell and Dan Smith, ECSU was able to provide popular welfare events throughout the year. Such events were particularly appreciated during exam term, when the welfare officers organised new popular events such as a mindfulness session in the Fellows' garden, which was delivered by Emma member, Claire Thompson.

Gratitude is owed to each member of the committee, and special thanks is offered to Matilda Spivey, ECSU's secretary, who has tended to ECSU's administrative needs by organising the publication of the agenda for our meetings, club and society

photographs and publishing *What's On* each week. Vedanth Nair, ECSU's treasurer, has administered ECSU's finances very sensibly and has arranged discounts with local businesses for Emma students. An additional thank-you is owed to students and staff who have been willing to work on many projects with ECSU; we look forward to our last term in Michaelmas and to handing over to a new committee who we are sure will be just as devoted.

Katie Nelson, *President*

HOCKEY

	2017–18	*2018–19*
President	*Henry Pulver*	*Henry Pulver*
Men's Captain	*Henry Pulver*	*George Milner*
		Lloyd Morgan
Men's Vice-Captain	*Cameron Millar*	
Women's Captain	*Gemma Pimlott*	*Hannah Horton*

Men's team

Michaelmas term started with a strong recruitment push at the freshers' fair, with many freshers being enticed into joining up for the season ahead. We eased into the term with two losses in the first two games, one a 6–3 defeat to Downing where the floodgates opened at both ends thanks to wonderful attacking play from Emma and also to appalling goalkeeping from our debutant goalkeeper. However, with the acquisition of a new goalkeeper, we found our feet, managing a scrappy 2–0 win over an eight-man Jesus team and, thanks to Queens' not being able to field a team, our position in the first division was safe.

The Cuppers campaign was short, losing to St Catz 6–1 in the quarter-final, after we had put a solid Caius team to the sword 4–2 in the first round.

Lent term was to be our term. The team had gelled well over Michaelmas and, with several new players fully bedded in, we were ready to go full tilt for the first division title. The term started with impressive 4–0 and 5–1 wins against St Catz and Queens' respectively. We were the team to beat. We followed this with

another win and draw, putting us head-to-head with St John's in the title race, our opposition in the final match to decide the title. The stage was set. This was not one to be missed. Even captain Henry Pulver returned to play the game despite a broken hand. However, the title was a step too far, and we lost 4–1.

Despite the upward trajectory of this season, a rebuilding project must begin as we lose several key members and big names of Emma hockey this year. Conrad Lippold deserves a special mention as his six fruitful years of Emma hockey came to a bittersweet end by missing out on the first division title. His contribution of goals galore will be sorely missed. This rebuilding project will be undertaken by our new joint captains George Milner (player of the season) and Lloyd Morgan who we hope will, under the watchful eye of the club president, carry the club forward to more successes.

Mixed team

Despite a particularly strong mixed team this year we were knocked out of mixed Cuppers in the quarter-finals 3–2 by a St Catz team who were trailing 2–1 to us until the last five minutes. This was a truly gutting result, as the team played brilliantly, with many individuals producing some great hockey.

Henry Pulver, *President*

JUNE EVENT

This year Emmanuel College played host to over 1000 guests for 'Twist and Shout!', the biennial June Event that this year had a sixties theme. We celebrated historic moments from the decade, with Cambridge student musicians and bands performing in hall (transformed into a moon-landing-themed haven) and the Old Library, where they used the hugely popular jazz stage that provided a perfect backdrop to a James Bond-themed casino. The Paddock was transformed into a sprawling festival to match Woodstock, that saw the Master and Head Porter get up and dance!

Guests had their fill of delicious curry, paella and pizza throughout the night, and their thirst was quenched by ice-cream cocktails, beer from Emmanuel members Jocks & Peers, and

Hebe Hunter Gordon

The Master and the Head Porter in the swing of things in the Old Library at the June Event

Swing boats in the paddock attract the crowds at the June Event

John McLean

A change of pace in the hall at the June Event

John McLean

Sipsmith gin and tonic to name a few highlights. People were twisting and shouting all night to the high capacity silent disco in Chapman's Garden: a first for Emma events! Fun was had by all speeding down a giant helter-skelter that towered higher than the library and by playing table football in the bar to the highlights of the 1966 World Cup final!

The college grounds played a perfect backdrop to a handmade Abbey Road crossing and Carnaby Street as well as to beautiful decorated vintage records that many students of the college designed. Records were broken (metaphorically) by the committee as we appointed our first sustainability officer and from our efforts to reduce waste and use of e-ticketing we were awarded gold accreditation from CUEcS Sustain-A-Ball scheme!

The committee was made up of a range of undergraduate students from their first to fourth years, who brought endless enthusiasm towards putting together an event for the rest of college to enjoy! Though we had a few attempts from non-ticket holders to join the fun, the night went without a hitch for the committee and was a perfect celebration for students finishing their exams.

Eleanor Cox & Peter Welch, *Presidents*

LACROSSE

	2017–18	*2018–19*
Captains	*Ellie Phelps & Saskia Oakley*	*Poppy Boyd-Taylor & Gabriel Robert-Tissot*

Emma lacrosse faced a period of rebuilding this year, with only a handful of players retained from the previous season. However healthy recruitment of freshers and of fellow third-year medics meant that we had a consistently strong turnout for matches and have developed a strong pool of players. After the success of the previous season, we began Michaelmas term in the first division; unfortunately, our lack of experience saw us dropping into the second division. However, it was with great pride that, despite conceding in the first half, we never conceded a goal in the second

Olivia Malmose O'Connor

The team after the game against Exeter College, Oxford

half of matches. The term ended with a friendly game of lacrosse in the snow just before Christmas.

We began Lent term in the second division more optimistic of our chances. Ben Lammin equipped the team with matching pink tops and our lax became much more fluid. Mattijs De Paepe scored the first goal of the season shortly after the start of term against John's. The team also enjoyed a very strong game against the Exeter College, Oxford side and we had the rare chance of playing some lacrosse in Easter term in the form of postponed Cuppers. Another strong turnout meant that, despite not progressing beyond the group stages, the team remained in high spirits.

Unfortunately, despite our best efforts the very cold weather and lack of goals means that the team starts next season in the third division. Gabriel Robert-Tissot and Poppy Boyd-Taylor will take over the captaincy, and I am sure that Poppy's lacrosse background, Gabriel's enthusiasm and the strong groups of freshers now playing lacrosse will see the team returning to winning ways next season. It has been a thoroughly enjoyable season of lacrosse and great to see the sport being so open to all players.

Saskia Oakley, *Joint Captain*

MCR

	2017–18
President	*Tiago Barros*
Vice-President	*Klara Kulenkampff*
Secretary	*Jana Sipkova*
Treasurer	*Tomos Reed*
Accommodation & Environment Officer	*Bobby Seagull*
Computer Officer	*David Burt*
Disabled Students' Officer	*Sarah Burgess*
Education & Careers Officer	*Rémi André*
External Events Officer	*Chiara Chiavenna*
Families' Officer	*Alex Cassidy*
Internal Events Officer	*Mairead Dinneen*
International Officer	*Georgia Roussou*
LGBT+ Officer	*Emily Hoyt*
Minorities Coalition Officer	*Jonathan Ho*
Social Secretary	*Luxi Qiao*
Sports Officer	*Matthew Philpott*
Welfare Officer	*Geoff Ma*
Women's Officer	*Melanie Miller*

The academic year 2017–18 has been filled with memorable moments for our Emmanuel MCR community. Throughout the year we shared the strong sense of belonging that makes Emmanuel College such a unique place to be. Members of the MCR were able to benefit from the enriching diversity of students that the college brings together, which is an integral part of the experience of being a graduate student at Emma. A busy year unfolded fairly quickly, leaving behind great memories and bonds between students that will last for life.

The year began in October, with many students arriving to the college for the first time. The freshers' week was a highlight of Michaelmas term: filled with thrilling events and opportunities to meet new colleagues, it provided ample opportunity for new members to get to know each other and forge strong friendships.

Many MCR activities have helped to keep the community tight throughout the year. MCR dinners stood out as prime occasions

when members gathered to celebrate the joy of being at Emmanuel. Fine-dining experiences, together with entertaining music events, made these evenings moments of great fun that helped students to relax from their busy student schedules. A multitude of swaps provided opportunities for MCR members to visit other colleges in town, to learn more about their traditions and, above all, to meet new people from other MCR communities. Throughout the year, graduate talks provided wonderful occasions for members to learn about fascinating topics and thrilling research being done by graduate students of the college: these talks are a continuous platform where MCR members can have a first-hand experience of what it means to be part of a thriving community of learning.

Several other events have marked the year, including pub-crawls, film nights, a self-defence workshop and even a pool party during Easter term. The rock & roll and swing dancing courses in the Old Library were among the most popular events during the year. The MCR also introduced a punting subscription in May, and members can now rent a punt free-of-charge and enjoy it with friends and family throughout the day.

One more year has passed in the life of Emmanuel. Some of us are about to leave, others are staying for further studies and many are counting down the days to start their journey at the college. This MCR community is one great family and, in a world filled with uncertainty, one reassuring thought emerges: we will all be members of Emmanuel College for life.

Tiago Barros, President

MUSIC SOCIETY (ECMS)

	2017–18	*2018–19*
Honorary President	*Dame Fiona Reynolds*	*Dame Fiona Reynolds*
Director of Music (Acting)	*Dr Christopher Whitton*	*Mr Richard Latham*
College Fellow	*Dr Sarah Bendall*	*Dr Sarah Bendall*
President(s)	*James Scott & Robert Cochrane*	*Anjali Gupta*
Vice-President (Classical)		*Sophie Westbrooke*
Vice-President (Jazz)		*Harry Lidgley*
Senior Organ Scholar	*Hugh Crook*	*Marcus Norrey*
Junior Organ Scholar	*Marcus Norrey*	*Mark Zang*
Treasurer	*Abhishek Patel*	*Abhishek Patel*
Secretary	*Alexandra Emsley*	*James Sutton*
Chorus	*Tatiana Sherwood*	*Ellen Palmer*
Emma Big Band	*Anjali Gupta & William Haslam*	*Anjali Gupta & William Haslam*
Emma Jazz	*Timothy Davidson & James Fraser*	*Timothy Davidson & Harry Lidgley*
Events Officers	*Aimee Lawrence & William Dorrell*	
Folk Ensemble	*Robert Cochrane & Adina Wineman*	*Adina Wineman*
Hires & Equipment Managers	*William Haslam & Oliver Philcox*	*Peter Scott & Fernando Georgiou*
Publicity	*Alexandra Baker*	*Rohan Gupta*
Recitals	*Patrick Charles*	
SECCO	*Robert Cochrane & James Fraser*	*Robert Cochrane & James Fraser*

The Music Society has had another very active year, showcasing its strength and depth of musical talent through performances both within the college and across the university more widely.

The termly concerts held in the Queen's Building have been well-attended on every occasion, with the Chorus, Folk Band, SECCO (Sidney Sussex, Emmanuel and Corpus Christi Orchestra) and the newly formed funk band Soft Crunchy Landing all making appearances. The jazz scene in college has grown considerably, to facilitate the creation of Emma Jazz as well as the Emma Big Band, both of which have performed in end-of-term concerts.

Weekly recitals throughout the year have been successful in attracting gradually larger audiences and broader interest from musical groups across the university who have wanted to perform. These have showcased Emmanuel students and groups from both

within and outside the university, encompassing a rage of genres. Emma bar was full and lively for our Jazz & Cocktails evening at the end of the Lent term, with Soft Crunchy Landing and the Big Band providing music.

James Fraser

Emma Jazz at Trinity May Ball

Peter Scott

A ceilidh at the ECMS garden party

The Easter term is musically the busiest for the college. As well as our recitals and concert, Emma Jazz performed at five May Balls including Trinity and St John's, making it the busiest college jazz band this May Week! A very proactive hires team (special thanks here to Peter Scott and Fernando Georgiou) supplied kit to over ten events in the same period, which has proved an excellent financial support for the society, facilitating the upgrading of some of our equipment including a new drum kit. The Folk Band led a ceilidh in college for the ECMS garden party, as well as at numerous May Week events where they were very popular.

Many thanks to Dame Fiona Reynolds, Dr Whitton, Dr Bendall and Mr Latham for their continued support throughout the year.

Anjali Gupta, *President 2018–19*

NETBALL CLUB

Mixed first team

The mixed first team had a successful League performance this year, performing consistently well throughout both Michaelmas and Lent terms, finishing both terms in third position in the first division. There was a strong turnout for all matches, despite the varying weather conditions! The commitment from all team members and all their hard work is exemplified not only by the success of the team, but also by the fun and inclusive atmosphere both on and off the court.

The annual Cuppers was postponed in March because of the arrival of the 'beast from the east', but this did not dampen the team's ambition. Cuppers was eventually played at the beginning of May in Easter term. However, despite our best efforts to get players by combining both the first and second teams into one super team as well as by winning several of their matches, a lack of female players lead to the Emmanuel team's results being disqualified and so we were not placed. In spite of this, all the team members had a great morning and it was a great way to end what has been both a fun and successful season of Emma netball.

Overall, it was a great year for mixed netball, with both teams in strong positions for the year ahead. It will be great to try and improve upon positions both within the Leagues and also in Cuppers!

Olivia Malmose O'Connor

The mixed netball teams

Mixed seconds

Following our blazing ascension into the second division, the Emmanuel mixed seconds netball team found the Lent season to be the toughest yet. Our promotion proved to be immensely challenging, with our first taste of loss this year early in the term. But we gritted our teeth and ploughed on.

The core team from Michaelmas term was supported by a constantly reshuffling roster of skilled but infrequent players; this meant that we were forced to adapt our team play every week, which made it difficult to play against perhaps more well-oiled sides. Yet, by the end of the season, our initial shortcoming became

our biggest strength, with our flexibility of play allowing us to rotate players between positions to power our explosive play.

Our progression as a team nurtured significant individual development, with Seb 'dunking' Dunne and Finnian 'Rob-them of the ball' Robinson gaining mastery of end-court and mid-court play respectively. These skills will undoubtedly set them up for years of sporting excellence ahead of them.

This season was filled with cries of 'TAKE YOUR TIME!' and 'HERE IF YOU NEED!', which ultimately represent the attitude of our team: we take our time to enjoy the game with our teammates, as they will always be here if we need them.

Emily Pratt, *Mixed first team Captain*

QUIZ SOCIETY

The 2017–18 academic year saw the second successive appearance of Emmanuel College on *University Challenge*. Team Emma's class of 2018 consisted of captain Alex Mistlin and teammates Edmund Derby, Kitty Chevallier and James Fraser. Mascot-wise, the team were cheered on the TV studio floor by Ellie the Duck (sadly Manny the Lion and Kleiny the Bottle were supporting from the Porters' Lodge).

© BBC

Team Emma thrilled us all with a last gasp first-round victory against the highly rated St Hugh's Oxford (170–155). A more comfortable second round triumph against dark horses Strathclyde

(170–105) secured our place in the prestigious quarter-final group stages. Sadly fortune did not favour us, as two marginal losses to Edinburgh (125–110) and local rivals Fitzwilliam, Cambridge (175–150) saw us exit valiantly at this stage.

© BBC

Team Emma (including reserve member Sarra Facey) on the BBC 2 Eggheads

At the start of the academic year in September 2017, a composite Team Emma was narrowly defeated by BBC 2's formidable *Eggheads*, who boasted the reigning World Quiz Champion in their line-up. Bobby Seagull captained our team with 2017–18 *University Challenge* peers Leah Ward and Bruno Barton-Singer (2017–18 ECQS president) and 2009–10 *University Challenge* champions Alex Guttenplan and Jenny Harris.

As well as our success on the national front, quizzing on the domestic front has been thriving as well. For the second year running, the Emmanuel College Quiz Society contributed the most teams in the domestic Cambridge quiz Cuppers: eight teams (and a total of 32 students) represented Emma. Considering there were 36 Cambridge college teams altogether, this shows real strength and depth of interest in quizzing at Emma. For 2017–18, our very own Tom Hill was a successful president of the Cambridge University Quiz Society. In the Easter term, Bobby Seagull even took part (as himself!) in an improvised comedy panel quiz show called *University Challenged* in the ADC Theatre's Corpus Playroom.

Like buses, Team Emma's appearances on *University Challenge* comes in threes. A new Team Emma have qualified for the 2018–19 series! In the autumn, we are excited to follow the journey of captain Dani Cugini with Connor MacDonald, Vedanth Nair (2018–19 ECQS president), Ben Harris (2018–19 ECQS secretary) and reserve Sam Knott. Once more unto the breach we go!

Bobby Seagull, *Treasurer*

RUGBY CLUB

	2017–18	*2018–19*
Captain	*Craig O'Malley*	*Tom Birdseye*
Vice-Captain	*Medani Elshibly*	*Matt Rodgers*
President	*Calum McKay & Stephen Leonard*	*Iham Kasem*
Secretary	*Hugo Davidson*	*Richard Deutsch*
Social Secretary	*Harry Holdstock*	*Max Marshall*
Old Boys' Liaison		*Sandy McCleery*

Stuart King Lifetime Achievement Award for services to Emma rugby: Craig O'Malley and Calum McKay

This was a season of dramatic highs and lows for Emma rugby, which promises a lot moving forward to future years. At the beginning of the season, hopes were high. If the talented squad could keep fit for Cuppers, there was a chance to repeat the epic win of 2015–16. Unfortunately, a lack of depth, numbers and injuries to returning Blues (Michael Phillips and Sebastian Tullie) marred what could have been a remarkable season for the club.

Glimpses of the flowing, attacking rugby that characterised this year's team were witnessed in the first match of the season against Fitzwilliam (W 19–12). The first try came from fast industrious rucking and expansive back-play, with Calum McKay collecting beautifully a perfectly weighted grubber kick from captain Craig O'Malley to finish off the move. The performance was one of the most complete and satisfying in my three years of Emma rugby and fuelled a rather inexperienced team with confidence.

Sterner tests came later in the season and our lack of committed numbers told. Under the new League structure, smaller divisions reset after every three weeks, which made every match

count for a lot more than in previous years. ECRFC retained its position in the newly formed division 2, in no small part a result of new recruits from outside the college, before ultimately succumbing to relegation on the last week of the League.

Nonetheless, as the saying goes, 'every cloud has a silver lining', and ECRFC's 2017–18 season was no exception. The situation with numbers meant that the club established valuable links with graduate colleges such as Darwin, and with Anglia Ruskin University. Moreover, a strong crop of freshers gained important experience and became stalwarts of the team. Special mentions here must go to scrum-half Matt Rodgers, who never missed a match or training and Yoseph Kiflie, who took up rugby for the first time this year. Despite a changing line-up, ECFRC finished the year very strongly. The club soundly beat our sister Oxford college Exeter (W 40–5) at home to retain the college varsity trophy.

After the match against Queens' at Grange Road

Next came Cuppers. Given a bye in the first round, Emmanuel comfortably overcame Homerton 45 points to 17. Our quarter-final opponents were a strong Queens' side that had dumped pre-tournament contenders, Jesus College, out of the competition. After much negotiation behind the scenes from O'Malley, Emmanuel managed to put out our biggest squad of the year. Angus Gardner, the Australian professional ref, refereed the game under floodlights at a muddy Grange Road; it had the feeling of a final. In a closely fought contest, Emmanuel lost 22–10 despite a blinding start.

Off the pitch, the club has been going strong with socials and an enjoyable Annual General Meeting, at which participants elected the new leadership of the club. I certainly hope for more of this to continue in coming years. Finally, all that is left to say from me is a huge thank-you to my committee this year for their help and support this eventful season.

Craig O'Malley, *Captain*

WOMEN'S RUBGY

	2016–17	*2017–18*
Captains	*Emma Nicholls & Georgina McCoig*	*Emma Nicholls*

2016–17 has been another successful season for Emmanuel College Women's Rugby Club, at both the college and university level. Although we play under the Emmanuel name and colours, this year our team has also included players from Homerton and Downing colleges.

Cameraderie within the team has been maintained by lots of events organised by our wonderful social secretaries, Jess Lister and Becky Walshe. Cocktails nights, meals out and trips to the bar to watch the six nations together were enjoyed by all. Our annual dinner in May was a great chance to celebrate the end of a brilliant season.

Emma Nicholls, *Captain*

TENNIS CLUB

	2017–18	*2018–19*
Women's Captain	*Ella Gibbon*	*Kim Barker*
Men's Captain	*Dave Thorp*	*Cameron Millar*
Men's Vice-Captain	*Cameron Millar*	

Emmanuel's first League team had another strong year on the college tennis circuit in Michaelmas term, storming to the first division title over St John's, Homerton, Christ's, Trinity, Jesus and Robinson colleges with regular performances from Cameron Millar, Harry Knill-Jones, Jake Boud, Craig O'Malley and Jacob Haddad. We also put forward a second college League team for the first time this year, thanks to the huge organisational effort of Min Choi. George Milner, James Fraser, Kim Barker and Min Choi deserve special mention for their performances, especially as for some it was the first time they were representing Emma in a competitive match. I hope this enthusiasm will continue and the team will be able to build on their performance next year!

Emmanuel's men cruised through the early Cuppers rounds with easy victories over Girton and Homerton aided by the stellar performances of late recruits: James Fraser and Charlie Ferguson. They then met regular rivals Jesus College in the semi-finals. Bolstered by their Blues players, Jesus were able to take the close contest for the second year in a row, despite fresher George Milner's fantastic effort beating a university player in his maiden singles match for Emma. Three of ECLTC's men's team (Cameron Millar, Craig O'Malley and Dave Thorp) also helped the university's third team comprehensively overcome Oxford in their 2018 Varsity Match. Next year Emmanuel's men will look to replicate the strong League performance of 2017–18 while finally going one step further in Cuppers.

The women's team successfully worked their way to the final in this year's Cuppers competition across multiple weekends in the Easter term, and massive thanks are given to all the players not only for their strong play but also for their dedication in making their schedules work to allow them to compete at such a busy time of year! The team comprised Georgina Shepherd, Jana Sipkova, Kim Barker, Samantha Ruston and Ella Gibbon, and we sailed through the early rounds with multiple 6–0 and 6–1 wins against the St John's second team and Pembroke. In the final Georgina, Jana, Kim and Ella came up against John's first team and the battle was hard-fought, with numerous deuces and especially strong serving from both sides. Ultimately, Emma came in second place, but next year's team should be encouraged: we definitely have the potential to win Cuppers once more! The competition was also marked this year by matches being played on a variety of surfaces (hard court and grass), so any college members who enjoy paddock tennis should be encouraged to consider joining the squad next year.

To celebrate the end of the season and bring together players from the wider college community, the men's and women's captains organised a mixed doubles day at Wilberforce Road at the end of Easter term, complete with strawberries, cream and kettle chips. Pairs played first in round-robin group stages, after which there were hard-fought semi-finals and the final. Special mention should be given to Gemma Pimlott and Toby Lane for their highly appreciated matching outfits (headbands and all), Cameron Millar and Olivia Rowe (the overall winners), and the Emmanuel cricket team for sharing their extra sandwiches.

Ella Gibbon, *Women's Captain*

ULTIMATE

	2017–18	*2018–19*
Co-Captains	*Vedanth Nair (Emmanuel)*	*Max Langtry (Emmanuel)*
	Timothy Colpus (Pembroke)	*Joel Williams (Emmanuel)*
Vice-Captain	*Christiane Tan (Pembroke)*	

Ultimate Frisbee (officially called 'Ultimate' because frisbee is a brand name) is one of the most popular sports in the university, despite most people never having played it before. For those that haven't heard of it, two teams of seven aim to throw the frisbee to someone standing in the end-zone at the other end of the pitch. There is no contact, and a dropped catch is a turnover. Success is likely because of its relaxed nature. Having evolved out of hippie

culture in American universities in the 1960s, there are no referees in frisbee, even at the international level, with any disputes being settled by players through discussion. The relaxed culture feeds down to college League as well: after every game, each team ranks the other team's 'spirit', and the team with the most spirit wins a bottle of spirit. ChrEmBroke House, having won the spirit award this season, are very much looking forward to our social next year.

ChrEmBroke House (a portmanteau of Christ's, Emmanuel, Pembroke, and Peterhouse) was formed in 2012. We have around 30 players, with roughly ten regulars. College League is mixed, and we have been trying hard recently to increase female participation. This year, we came seventh in college League and fifth in Cuppers.

Vedanth Nair, *Co-Captain*

VETMEDSOC

	2017–18
President	*Patrick Warren*
Vice-President	*Stephen Leonard*
Secretary	*Tanvi Acharya*
Treasurer	*Izzy Sealey*
Social Secretaries	*Ankit Chadha & Amol Joshi*
Welfare Officer	*Alex Bow*
Clinical Liaison Officer	*Calum Worsley*

Emmanuel College Veterinary and Medicine Society stands alone as the single academic society in college, assembled largely to aid pre-clinical students tackle the notoriously difficult undergraduate years of the course. In an analogous manner to earlier committees, VetMedSoc held an event to pass on lessons learnt about how to get the most out of the course and to succeed in the end-of-year examinations. As well as this, the committee brought together a collection of Part II students to give guidance on various third-year courses to aid in decision-making for what is an under-appreciated year in medical training. An important facet of the society is that it develops a cohesive community amongst veterinary and medical students across all years, a task that was ably carried out by our

social secretaries, Ankit and Amol, and our welfare officer, Alex Bow. Undergraduates often came together for relaxed social events as well as all years being brought together for a formal VetMedSoc dinner in which Emmanuel's resident clinical pathologist was our esteemed speaker.

Building on the successful committees of previous years, the 2017–18 committee sought to aid undergraduate students pursue their scientific and clinical interests beyond the Cambridge course. This was a priority for the leadership team of Patrick Warren and Stephen Leonard, and as such was a frequent discussion point in meetings. To achieve this Calum Worsley rallied the clinical medical students both to excite the undergraduate students with regard to future years, as well as to contribute possible ways in which it is possible to engage with clinical medicine prior to Year 4. In addition to this, third-years who had undergone various research experiences over the summer of 2017 held a seminar in which the second-year students were able to ask questions that were troubling them regarding scientific research. Following such events, multiple second-year students are looking to spend the summer of 2018 acting as healthcare assistants in hospitals as well as student interns in research labs worldwide.

Stephen Leonard, *Vice-President*

WATER POLO CLUB

	2017–18	*2018–19*
Captain	*Henry Stuart-Turner*	*Finn Heraghty*

This has been a great year for Emmanuel water polo, starting off with the formation of NewnEmmaHouse, a combination of players from Newnham, Emma and Peterhouse. With Friday-night friendlies scattered throughout Michaelmas term, it was clear that we would be a formidable team. The first tournament at the end of Michaelmas term, which for some players was their first experience of competitive water polo, was an opportunity to make our mark. We came out in second place with the title of goal winner, which was a great start to the year.

Unfortunately, the Lent term tournament did not give the same story as we were knocked out in the first round, because multiple players were involved in university games and so unable to play. This drove the team's motivation to play even better in Cuppers. With outstanding performances coming from Blues player Patrick Charles and next year's captain Finn Heraghty, we managed to make it to the semi-finals to face Sidney/Jesus/Catz. NewnEmmaHouse put up a great fight, shown by the match being tied down to the final minutes. However, the final score was 4–5, leaving us to play and win against JChill (John's and Churchill) in the third place play-off.

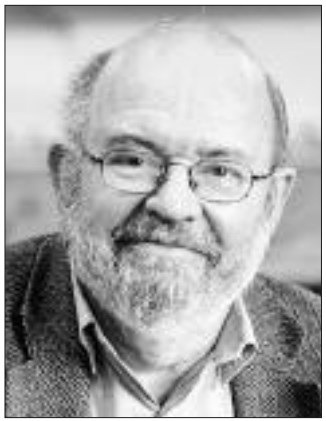
Matthew Chadwick

The Cuppers team from left to right are George English (E), James Farley (E), Francesco Bello (P), Colin Kaljee (E), Henry Stuart-Turner (E), Finn Heraghty (E), Ben Walker (C), Rebecca Mills (N), Ella Irwin (N), Sophia Rodrigues (E), Yung Lo (P), and Celine Heinz (J) where (E) denotes Emmanuel, (P) Peterhouse, (N) Newnham, (C) Corpus and (J) Judge Business School.

Overall, despite some losses for the team, we have gone from strength to strength, and hope to continue this next year with the aim of preventing Queerwin (Queens' and Darwin) from continuing their winning streak.

Henry Stuart-Turner, *Captain*

Obituaries



PETER BAYLEY (1963, Fellow 1969–71) died on 9 April 2018. Barry Windeatt (Fellow) writes:

Wren's Gallery stretched away in front of him one November evening, the long table set for dessert, with candle light glinting on the silver, the decanters and the gilded frames of the old portraits. For Peter Bayley – an undergraduate from the village of Portreath on the remote north Cornish coast, attending his first Commemoration of Benefactors – the effect was life-changing. 'In that moment I discovered my vocation', he remarked years later. 'My vocation was to stay …' Such an emphatic manner of speaking, with an often vehement stress on key words, reinforced by a vigorous gesture of stubbing out the latest of innumerable *Gitanes sans filtre*; a distinctly Gallic dark moustache; a kind of gleeful engagement with people and with the finer things in life: this was the unforgettable Peter Bayley.

In the end Peter was to stay in Cambridge at Caius rather than at Emmanuel, but he retained a nostalgic affection for his old college, although the Emmanuel he wanted it still to be was the college where he had been a Research Fellow: the Parlour with Edward Wilson, Edward Sands and Gerard Evans discussing over dessert the latest interesting books circulating in the Jesus Book Club; Gerard's corruscating wit on current affairs; luminously beautiful surroundings and the wondrous herbaceous borders of Mr Sealy, the Head Gardener (Peter was a passionate gardener); and the pool in the Fellows' Garden on a hot July evening.

With his energy, enthusiasm and humour, Peter was a memorable teacher and convivial colleague. Former pupils recall Peter's vivid hyperboles that brought teaching alive, and one remembers how Peter defined to her the term 'dithyrambic' (dictionary definition: 'choric hymn of a wild character; vehement poem, speech or writing') as 'a bit like me'. He was unimpressed by pretention: when a pupil cited in her essay a critic (of the deconstructive persuasion) as making a point 'by analogy', Peter crossed out 'analogy' and substituted 'mistake'. A colleague remembers Peter commenting drily about 'a book I've supervised on so often over the years that it's almost as if I've read it myself'. Peter took some pleasure in being himself the object of a donnish witticism that was celebrated around Cambridge in its day. The occasion was a driving accident, for Peter's early adventures in driving were the talk of the town. One evening he was speeding up Silver Street, apparently forgetful that St Botolph's Church stood rather in his way. Swerving at the last moment to avoid the church, Peter's car crashed through the railings into the churchyard, creating an awesome degree of havoc, with old gravestones toppled in all directions. Visiting Peter in hospital the next day, a Fellow of Caius, Dermot Fenlon, alluded to Matthew 16:18 ('Thou art Peter, and upon this rock [*petram*] I will build my church') when he remarked in Latin as he approached the bedside: *Petrum video sed ubi est ecclesia?* [I see the rock, but where is the church?]. In truth, for Peter – who listed 'English ecclesiastical history' among his recreations in *Who's Who* and who was so learned in sermon literature – the Church was never far from his thoughts and interests, and to visit with him some country church (or country house) was always to see freshly because of his amazingly well-stocked and various erudition, as well as his eagle eye.

Savouring a glass of excellent claret one evening, Peter commented how wonderful it would be if one's last moments before death might be spent drinking some glorious vintage, although he immediately remarked with a grimace that in fact one's last drink was likely to be 'a potation of aspirins!' Alas, Peter was not to enjoy that last glorious glass. A stroke meant that friends and colleagues had the mournfully unfamiliar experience of finding themselves the dominant partner in the conversation. This was all the sadder, because while Peter put his prodigious energies and talents into his teaching and administration, he put his genius into living and into conversation. In this he represents a kind of academic career and a tradition of academic conversation – learned, witty, allusive – which has all but disappeared from Cambridge within a short time, and which only makes Peter Bayley all the more memorable.

We reproduce here with the permission of its editors the obituary by Michael Moriarty, Drapers Professor of French and Fellow of Peterhouse, which appeared in *French Studies*.

Peter Bayley, former Drapers Professor of French at the University of Cambridge, was born at Redruth in Cornwall on 20 November 1944. Educated at Redruth grammar school, he went up to Emmanuel College, Cambridge, to read modern and medieval languages (French and Spanish) in 1963, graduating with a First in 1966. In 1969, he was elected to a Research Fellowship at Emmanuel, and in 1971 was awarded his PhD for a thesis on seventeenth-century sermons supervised by Richard Sayce. That same year he was appointed to a college lectureship at Gonville and Caius College and elected to a Fellowship there. In 1974 he became a university assistant lecturer in the Department of French, and in 1978 a university lecturer. He held various college offices, being a Tutor from 1973 to 1979, and Praelector Rhetoricus, presenting candidates for degrees, from 1980 to 1986.

In 1980, he published *French Pulpit Oratory, 1598–1650: A Study in Themes and Styles with a Descriptive Catalogue of Printed Texts* with Cambridge University Press (reviewed, very favourably, by Terence Cave, in *French Studies*, **35** (1981), 70–71). This was a very remarkable work of historical literary criticism. As Peter noted, recent scholarship had made early seventeenth-century poetry and drama available for critical enjoyment; he himself aimed to enlarge critical horizons by doing the same for pulpit eloquence, in its surviving printed form. The work set itself against the dominant trends in French literary history: it refused to depict a steady progress towards a supposed ideal of classical perfection and to treat statements of literary doctrine in isolation from oratorical practice. It participated in the revival of interest in the history of rhetoric exemplified, in French studies, by the work of Gérard Genette, Peter France and Aron Kibédi-Varga; it also drew on recent related work in the domain of English literature. Peter showed very clearly that you could not hope to understand the work of early modern preachers by studying them either in terms of a progress towards classicism or as so many free-standing individuals. To appreciate the achievement of the individual orator, we had to be able to see him against a 'background of trends, conflicts, fashions and obsessions' (*French Pulpit Oratory*, p. 6).

To reconstruct this background was the objective of the book, which combined deep erudition with a critical seriousness that was only enhanced by the lightness of touch of the writing. It analysed both general rhetorical treatise and manuals specifically devoted to pulpit oratory; in particular, it pointed to the effect on prose style of the use of commonplace books, recommended especially in the manuals. By close attention to the way in which different writers selected, developed and arranged their material, Peter was able to make subtle and original distinctions between different oratorical styles, sometimes, but not always, correlated with confessional allegiances. (He had, and displayed in his work, a rare imaginative sympathy for both Catholic and Protestant religious cultures.) He brought out the tensions produced by the co-existence of different structural models within a single text. He highlighted the great themes of pulpit oratory, especially through the stock of images with which writers explored the clash between illusion and reality, time and eternity, life and death. He reconstructed the vision of nature as a manifestation of God from which sermon-writers drew so much of their material, and traced the gradual divergence of religious and scientific approaches that in time erased the idea of correspondences between the physical and the spiritual worlds. Throughout the book, the scholarly reconstruction of discursive conventions enabled, rather than impeded, fine critical perceptions of those writers who used the conventions with originality or whose style departed in subtle or striking fashion from the established norms. The *Descriptive Catalogue* was pronounced by Cave 'an indispensable *instrument de travail* for future research'. The volume was complemented by an edition of *Selected Sermons of the French Baroque (1600–1650)* (New York: Garland, 1983).

The study of sermons was particularly appropriate for someone who was a superb oral communicator. Peter's lectures were memorable and inspiring. He took his audience on a voyage of discovery. Although the depth of his scholarship was far beyond

that of his undergraduate listeners, he was nonetheless inviting them to think with him and if necessary to suspend judgement with him: to be willing to consider that a fable of La Fontaine, for all its lightness of tone, might, if read carefully, contain a devastatingly pessimistic view of human life, or that we might not be able to determine the significance of Molière's depiction of the free-thinking libertine Dom Juan. His exposition of Pascal combined an extraordinary inwardness with the text of the *Pensées* with appropriate critical distance.

When the Drapers Professor of French, Peter Rickard, also a Cornishman [like Peter from Redruth grammar school and a (current) Fellow of Emmanuel], retired in 1982, Peter became acting head of the department of French. The process of electing a new Drapers Professor was a protracted one. Peter steered the department through the interregnum with great skill, and when the Electors' choice fell on him, it was warmly received by his colleagues. In an unobtrusive and collegial manner Peter was an inspirational head who encouraged innovation: the traditional literature curriculum was transformed by the introduction of new papers on literature and the visual arts and modern critical theory, and the first-year language and literature offerings were also radically modified and modernised. The department was not lacking in strong personalities with firmly held and vigorously argued views, but by his patience, good humour and firmness, Peter maintained an atmosphere of productive dialogue, in which potential discord was resolved into collective harmony. He was immensely supportive in his dealings with younger scholars. In those days, Cambridge professors customarily did not supervise undergraduates: Peter made a point of doing so.

One of the great achievements of Peter's headship was his assistance with the creation of a French Délégation culturelle in Cambridge (sadly, it no longer exists). This was no doubt a significant factor in the French government's bestowing on him, in 1988, the title of Officier dans l'Ordre des Palmes académiques in 1988 (he was created Commandeur in 2006). He stood down as head of department in 1996, and between 2000 and 2002 he was chairman

of the recently formed School of Arts and Humanities. Beyond Cambridge he made a prominent contribution to the discipline. He was president of the Society for French Studies from 1990 to 1992, vice-president of the Association of University Professors and Heads of French from 1989 to 1997, and a member of the executive of the University Council for Modern Languages from 1994 to 1996. In college he was for many years one of the two editors of the college magazine *The Caian*.

Peter's critical interests were not confined to the sermon. He published important articles on Saint-Simon ('Saint-Simon and the coronation at Rheims: rhetoric, ideology and writing', in *Studies on Voltaire and the Eighteenth Century*, 341 (Oxford: Voltaire Foundation, 1996), pp. 1–26) and Racine ('Aricie', in *Racine: Appraisal and Reappraisal*, ed. by Edward Forman (Bristol: University of Bristol, 1991), pp. 54–66). Nonetheless it was natural to suppose that his earlier work on the sermon would lead up to a study of the greatest of all French pulpit orators, Bossuet. With his combination of learning, literary sensibility and critical judgement, he was supremely qualified for this task. And indeed he was working on a book to be entitled *Bossuet the Orator*, when in 2006 he suffered a bad fall consequent upon a stroke. After a long convalescence he returned to work, but naturally not with the same intensity as had characterised the years of his prime. In 2011 he retired, and at his retirement party his colleagues had the pleasure of presenting him with a volume in his honour, entitled *Evocations of Eloquence: Rhetoric, Literature and Religion in Early Modern France* (ed. by Nicholas Hammond and Michael Moriarty (Oxford: Peter Lang, 2012)), with contributions from leading scholars of the period from the United Kingdom, France and North America. The alacrity with which those approached volunteered to contribute, the effort they put into their contributions and the quality of the results, were powerful indices of the respect and affection in which Peter was held. His years of retirement were increasingly spent at the house in Northamptonshire he shared with his long-standing partner, Dr Angus Bowie, Emeritus Fellow of The Queen's College, Oxford, who gave the address at his funeral in Caius chapel on 4 May 2018.

Peter was fond of the pleasures of life and generous in sharing them; he was a brilliant conversationalist and an immense personality. The academic world is much the poorer for his absence. There are many people in the world of French studies who can testify how much they owe him, as a teacher, mentor, colleague and friend.

© *French Studies*

The College is very grateful to relatives and friends who provide information for inclusion in this section, and would be glad to receive fuller appreciations of those whose deaths are noted only in the Deaths in the List section of this *Magazine*. The names below are arranged in order of matriculation date and alphabetically in the Contents section.

JOHN JESPER EADES (1938) died on 5 March 2018. We have received the following obituary from his son, Stephen:

John Jesper Eades, born on 28 April 1920, attended Bootham School, York, and became an undergraduate at Emmanuel prior to 1939, when he left his studies (economics) to join the Royal Navy at the commencement of the Second World War. He subsequently transferred to the Royal Marines, where he was commissioned and attained the rank of captain. Whilst at Emmanuel he represented the college both in cricket and soccer. Following the end of the war he married Beatrice Honor Butler in 1947 and, rather than return to Cambridge, took employment in the City of London, initially in merchant banking. Around 1950 he joined the Automatic Telephone and Electric Company Limited, which manufactured telephone exchanges and road traffic control systems, and he travelled widely around the world as its sales director. When the company was acquired by Plessey plc he became their international director. He retired from Plessey around 1975 and, along with his wife, moved to Wiltshire where they bred and exhibited Beagle hounds, recognised by the affix 'Jesson', for many years and attained considerable success with a number of hounds becoming 'champions'. Both Jesper and his wife became members of the Kennel Club and they were central in successful initiatives to introduce democratic procedures into its management. His wife, Honor, died in 2011 and he subsequently became an honorary life member of the Kennel Club. He had three sons, all of whom survive him.

IAN PATON HUNTER (1943) died on 27 January 2018. We have received the following obituary from his son, Stewart:

The Revd Ian Paton Hunter died at St Barnabas College, Lingfield, Surrey on 27 October 2017. My father retired in 1985, having been a parish clergyman since 1950. From 1985 to 2005 he regularly provided support to several churches in the Seaford area, where he and my mother had settled on retirement.

He was born in Scotland on 22 November 1920, and educated at Heddon Court 1927–33 and Lake House 1933–34 before going to Haileybury 1934–1938, The Bible Churchmen's Missionary & Theological College, Bristol 1940–43 and Emmanuel College, Cambridge 1943–46, where he studied history.

He was ordained deacon at Peterborough Cathedral in 1943, curate of Harrington, Northamptonshire, licensed to officiate at St Paul's Church, Cambridge 1943–47 and honorary chaplain to the USA Airforce, Harrington 1943–45. He was ordained priest at Peterborough Cathedral 1947 and curate of St Paul's Portman Square, London 1947–50. He then served as follows: vicar of Furneaux Pelham and rector of Stocking Pelham 1950–54, vicar of Moulton, Northampton 1954–60, vicar of Danehill with Chelwood Gate 1960–67, rector of Plumpton, East Chiltington and Novington, Sussex 1967–77, vicar of Burwash Weald, Sussex 1977–83, and finally priest–in-charge of Stonegate, Sussex 1983–85. In 1985 he retired to Seaford, Sussex, with permission to officiate in the Diocese of Chichester from 1986. He was honorary chaplain to the RAF Association, Seahaven 1989 and chaplain to the Mayor of Seaford.

Between 1943 and 1967 he assisted with the work of public and preparatory school camps. After retiring he wrote a book, *What Says the Preacher?*, which he originally intended to be a work on preaching. The following is an extract from the foreword:

> There is no labour in reading this book. We can go with its author as if we were out walking with him among the fields and woods, and he were moved to talk about his experience, his sympathy and his vision as conversation would bring them to his mind. There is consideration for us in the order which he has imposed on these thoughts. But if he has ranged here and there more widely into other aspects of his pastoral charge than he first intended, so much the better for us all. We are put in mind of the grace of another conversation, as it took place on the road to Emmaus.

In 1948 he married Peggy Collis (née Rooke), a widow and daughter of a church warden at St Paul's Portman Square. She died in 2010. In 1949 their daughter Geraldine Ruth was born and in 1951 their son William Stewart Andrew. There are seven grandchildren and six great grandchildren.

EDWARD JOHN CULLEN (1944) died on 14 January 2018. The following article appeared in *The Chemical Engineer*:

Sir John Cullen died on 14 January after a long illness. He had a long and distinguished career as a chemical engineer and received a knighthood in recognition of his services to health and safety.

Sir John was born Edward John Cullen on 29 October 1926, the son of William Henry Pearson and Ellen Beach. His father worked in the family business, a men's outfitters shop, located in the Butter Market in Bury St Edmunds.

He attended the local primary school, where his intellect was obvious, and he was put forward for and won a scholarship to Culford School, which he attended from 1937 to 1944.

He applied for an RAF short course at Cambridge and spent six months at Emmanuel College before joining the RAF in 1945. He returned to his academic studies at Emmanuel in 1948. He read natural sciences for two years before a further two reading chemical engineering.

After completing his degree, he spent a year (1952) as a Fulbright scholar at the University of Texas's department of chemical engineering, taking a master's degree. There he met Doug Moorhead. Doug's recollection of their meeting is as follows.

> One day in September 1952 at the chemical engineering building at the University of Texas I was shown into the office of the professor who was assisting new students choosing courses to be taken in the new semester. The professor said to me (knowing that I was Australian): 'You should meet that fellow who just left: he's English!'

I did indeed meet 'that fellow' later and we became firm friends.

Sir John resumed his studies in 1953, doing his PhD on gas absorption in streamline flow back at Cambridge. In 1954 John met Betty Hopkins and they married that December.

He decided that an academic career was not for him. In 1956 he joined the UKAEA at the Windscale research and development department and they had their first child, Caroline. In 1958 he joined ICI at Billingham, where he was plant manager. Their second child, Christopher, arrived in May.

After an initial 18 months at Billingham and a similar period looking after several plants, he moved to New York, based on Madison Avenue, on a three-year technical liaison assignment. In January 1962 their third child, Joanna, was born.

In 1963 the couple decided that it was time to return to the UK. Sir John became technical manager of Phillips Imperial Petroleum, a joint venture with ICI, and oversaw the building of a refinery on Teeside. In March 1965 a fourth child, Nicholas, arrived.

In 1967 Sir John was approached to join Rohm & Haas. The US company wanted to expand its operation into Europe, and he ended up as managing director of Rohm & Haas UK.

In 1983 he left Rohm & Haas and accepted the position of chair of the Health and Safety Commission. His years in the role saw advances on awareness of major hazards, control of dangerous substances and in the nuclear field, with major hazard (COMAH) legislation and the COSHH regulations on hazardous materials. He retired in 1993, and his contributions to safety were recognised with a knighthood.

Since being elected a Fellow of the Institution of Chemical Engineers in 1965, he had a long association with the body, spending a number of years on council in various roles: as a vice-president (1977–78 and 1985–87), joint honorary secretary with John Luckins (1978–80), honorary secretary (1980–81), honorary treasurer (1981–85) and president (1988). John was also a Fellow of the Royal Academy of Engineering.

In 2006 Sir John and his wife celebrated their diamond wedding anniversary at the Athenaeum in London with their family and friends. Sadly, later that year he lost Betty to cancer.

Sir John was a very gentle man with a wonderful sense of humour. He was a ferocious reader, leaving a house full of books. He and Betty believed in the value of education and encouraged all of their children through school and university.

He will be sorely missed by all who knew him and particular his children. The last words belong to his lifelong friend, Doug Moorhead: 'I had no finer or closer friend that John Cullen. I will miss him but I will cherish the memories of our long relationship, his intellectual gifts and his sincere friendship.'

JOHN HUNTER SEWART (1944) died on 26 October 2017. We have received the following obituary from his dear friend Mair and his children, Jonathan and Victoria:

John was born in Whitchurch, Cardiff in 1926 and spent most of his childhood in Wales before the family moved to Falmouth, where he acquired a lasting affection for Cornwall.

He came up to Emmanuel from Felsted School to study medicine, completing his training at University College Hospital, London in 1952. He subsequently undertook postgraduate training in occupational medicine and in community medicine at the London School of Hygiene and Tropical Medicine and at the University of Liverpool. He also took courses in ionising radiation and underwater medicine at the Institute of Naval Medicine.

The son and grandson of GPs, John chose to pursue a career in the navy and entered the Royal Navy as surgeon lieutenant in 1953, later attaining the rank of surgeon captain. He served as medical officer on HM ships *Tyne*, *Vanguard* and *Agincourt* (fourth destroyer squadron), and subsequently as medical officer in charge at RN hospitals in Hasler, Portland and Plymouth, and at the chest and general medical clinics at the Naval Base Hospital, Singapore. Other appointments included medical

adviser, Royal Fleet Auxiliary Service and consultant adviser in occupational medicine to Director-General Ships and to Director-General Supply and Transport (Naval). In 1960 he was awarded the Gilbert Blane Medal, granted to medical officers in the Royal Navy for especially meritorious service.

Taken to sea at a very early age by his father, sailing became for John one of life's greatest pleasures. His extensive collection of competition cups suggests that he was able to indulge this passion to the full during the family's time in Singapore, but he was fond of recounting the occasion when, sailing with his parents and sisters off Lundy Island, his father's yacht foundered on the wreck of a sunken ship when he was at the helm. He never forgot the help the family received from the local hostelry and the yacht's flag hung for many years, and may well still hang, in Lundy's Marisco Tavern.

Photographs of Emmanuel and of his cross-country-running teammates could always be seen in John's study and he would recall his time at the college with considerable affection. Much more recently, he also tremendously enjoyed meeting some contemporaries during the delightful lunches and afternoons spent at Emmanuel with the over-eighties members.

John was a very practical man, who would undertake diligently and efficiently any new project presented to him. He also took a keen interest in the arts and was instrumental in setting up the Liskeard branch of the Arts Society. He had a great love, and considerable knowledge, of classical music and frequently attended concerts in London and Cornwall. He also always enjoyed travel and had a true spirit of adventure.

Above all, however, John was very much a devoted family man, for whom the sudden death in 1992 of his wife, Elisabeth, whom he had married in 1956, was a calamitous blow. In his later years John found much happiness and love with his close companion Mair, who shared his interest in the arts, music and travel.

John died suddenly and peacefully at the age of 91. He is survived by his son Jonathan, his daughter, Victoria McCann and his grandchildren Oscar, Georgina and Tristan Sewart.

BERTRAM TERENCE MARTIN WILLIS (1945) died on 18 January 2018. The following tribute has been sent to us by his son, Jon:

Terry Willis obtained an honours degree in physics from the University of Cambridge in 1948 and a PhD from the University of London in 1951, working with Samuel Tolansky on the optical properties of piezoelectric crystals. After his PhD in 1951 he joined the Research Laboratories of the General Electric Company in Wembley, Middlesex, where he worked with X-ray diffraction on transition-metal compounds and became a specialist at studying phase transitions as a function of temperature. His first paper was on haematite (an iron oxide), followed by one on hexagonal manganese compounds.

From GEC Terry moved to Harwell, starting there in early 1954. He joined the metallurgy division and began working with X-ray diffraction on radiation damage in lithium fluoride. He was interested in the possibility of using neutron diffraction and after the 26MW reactors DIDO and its twin PLUTO came online in the late 1950s, Terry started construction of a single crystal diffractometer. The diffractometer's design and automation were assisted by Ulrich Arndt (Emma 1942, 1924–2006) at the Royal Institution in London. Together they persuaded Ferranti to construct a new diffractometer, which operated with a punched paper tape. This may have been the first commercially constructed diffractometer at a neutron source, although one was also in operation at Oak Ridge in the USA. In 1966 Arndt and Terry published *Single Crystal Diffractometry*. The book was a great success and was reprinted in paperback in 2009.

Many different problems were tackled by the neutron diffractometer at DIDO and this led Terry to come into contact with many academic staff at universities,

including Dorothy Hodgkin at Oxford, who received the Nobel prize in chemistry in 1964 for solving, with X-ray diffraction, the crystal structure of vitamin B12. She also had published the structure of insulin in 1955.

In his division at Harwell, Terry was allowed considerable freedom to pursue collaborations. From the mid-1960s the scientists there were encouraged to work with outside users, so his effort at broadening the use of neutrons was well received by Harwell's management. His programme was not even affected by the directive in 1968 that Harwell should pay for itself. Terry's continuing research in the 1960s and later, on a variety of systems, led to another book, *Thermal Vibrations in Crystallography*, written with Arthur Pryor and published in 1975. Many scientists from abroad visited Terry at Harwell in the 1960s and 1970s and he was a visitor to Denmark, India, Switzerland and Japan.

By the mid-1950s the development of nuclear power was being pursued in many countries, including the UK, and the limitations of uranium metal as a fuel were becoming evident. Although the metal has good thermal conductivity, methods of fabrication and the low melting temperature (1132°C) posed considerable problems. MAGNOX fuel, based on uranium metal (U), was developed in the UK, but more efforts were turning to the oxide, UO_2. The overwhelming advantages of ease of fabrication (using standard methods to produce ceramic pellets) and the high melting temperature (~ 2900°C) had significant implications for safety so, despite its poor thermal conductivity, UO_2 gradually became the fuel of choice, as it still is today. UO_2 is a perfect system to study with neutrons as the X-ray pattern is dominated by scattering from the uranium atoms, whereas neutrons can give information about the positions of the oxygen atoms. By 1961 single crystals were available from a number of sources, including some that were grown at Harwell. Terry thus started on a trail that was to last for more than 50 years!

Terry published the first structural work on UO_2 in two papers in 1963. In the second they reported measurements up to 1100°C and showed that at these high temperatures normally equivalent reflections had different intensities. Although initially these differences were ascribed to shifts in the oxygen atom positions in the fluorite-type structure, they later realised that they were the result of the anharmonic nature of the vibrations of the oxygen atoms.

Already by the late 1950s it was known that the U-O phase diagram was complex, with at least three phases UO_2, U_4O_9 and U_3O_8, with different phases of U_4O_9 found as a function of temperature. The fission process generates much heat and also defects in the UO_2 structure; the crucial question to ask was what happened to the UO_2 lattice as oxygen was absorbed into the lattice? This was addressed by Terry in another seminal paper published in 1963 on a single-crystal sample of $UO_{2\cdot13}$ measured at 800°C. The answer that he proposed was that oxygen atoms were missing from two sites in the UO_2 structure, but four extra oxygen atoms were added in interstitial positions. This accounted for the rise in the oxygen content above 2.00. The resulting cluster is called the 'Willis 2:2:2' cluster and is widely cited. Of course, over the years this model has been refined, but the essential details have not changed since the first paper in 1963 and the longer one published soon after.

The importance of these concepts was underlined in a recent paper by Wang, Ewing and Becker in 2014, where they presented model calculations of the position of the interstitials in the fluorite structure and claimed that:

> We demonstrate that the Willis cluster is a fair representation of the numerical ratio of different interstitial O atoms; however, the model does not represent the actual local configuration. The simulations show that the average structure of UO_{2+x} involves a combination of defect structures including split di-interstitial, di-interstitial, mono-interstitial, and the Willis cluster, and the latter is a transition state that provides for the fast diffusion of the defect cluster.

Understanding the configuration of defects is important for safety considerations. Experiments have shown that, except at very high burn-up, the clusters do not migrate in irradiated UO_2, but are relatively stable and just increase in density as a function of burn-up. The integrity of fuel is maintained under irradiation.

Terry also tackled the crystal structure of U_4O_9, which had first been identified using X-rays in the late 1940s. Single crystals of this material were prepared directly by controlled oxidation of UO_2 single crystals. The first paper appeared in 1986 with further details appearing in a paper published with R I Cooper in 2004. Even in 2006, Terry published an article correcting a paper by other authors on this structure. This showed Terry's combative spirit even in his 80s!

To close the UO_2 story, its magnetism is worthy of mention. UO_2 had first been demonstrated to be magnetic in 1952, with a spectacular first-order phase transition at about 31°K, which suggested antiferromagnetic ordering. Terry had been involved in low-temperature work in the early 1960s, but was so busy with the structural work that the study of the antiferromagnetism lay unpublished in his office. However, in late 1964 he made a visit to Brookhaven National Laboratory on Long Island and found, to his surprise, that they were working hard on the study of antiferromagnetism in UO_2. He returned to the UK and quickly wrote up what they had at Harwell and submitted it with R I Taylor two weeks before the longer BNL paper by B C Frazer and others was sent to *Physical Review* in 1965. The story of the magnetism of UO_2 went on and on, both of elastic and inelastic scattering, and has been as long and twisted as the structural one that Terry started in 1963 but not centred at Harwell.

In 1965 Terry was approached about organising a school for neutron scattering. The first was held at Harwell in 1966 and subsequent schools were held every alternate year until 1974. Then there was a pause when Terry was not well until they started again in 1979. They were not held on a regular basis until the mid-1980s, when they were moved to Oxford and where they still continue on a biennial basis, the latest one being the sixteenth Oxford Neutron Summer School, held in September 2017. As far as we know, the school in 1966 was the first one in the world, and many famous neutron practitioners have attended the schools of the past 50 years. Colin Carlile helped Terry re-start the schools, and their efforts for the school also turned into *Experimental Neutron Scattering* (Oxford University Press, 2009).

I give just one story about the re-started schools in the 1980s. Terry left Harwell in 1984 for a position with the Chemical Crystallography Laboratory at Oxford University. However, the university was not keen to subsidise the school. At that time Terry and Colin had arranged for the school participants to stay in Keble College in Oxford (attendees have more recently lodged at St Anne's College), and Keble demanded a deposit of £15,000 against the possibility that no students would turn up! Terry paid this from his own savings. Fortunately the students did indeed come, but the school had difficulties of this sort until it was taken over some years later by the Rutherford Laboratory, and since then has flourished without anybody's savings being depleted!

In 2007 the Neutron Scattering Group of the Royal Society of Chemistry established a prize for outstanding neutron scattering science. The prize is named in honour of the founding chairman of the Neutron Scattering Group, B T M Willis, and is awarded annually.

Terry had a remarkable career: as a pioneer in neutron crystallography at Harwell, as one of those who established the first user programme and then the first school on the subject, and as someone who has made seminal contributions with his work on uranium dioxide. It is fitting to finish this tribute with a poem written for the 2009 celebration by Alan Leadbetter (former head of ISIS and Scientific Director of the ILL):

I'm going to tell you an interesting story
That relates to most everyone here
It started way, way back in sixty six
At least I think that that's the right year!

It was in a place you all know called Harwell,
Where B T M Willis could be found
Scattering neutrons from all kinds of crystals
And look – the old chap's still around!

Well, he was a great expert on neutrons
And wished to spread his know-how around
So he thought of a School for Neutrons (not scandal!)
And the idea fell on fertile ground.

Oh, it was such a splendid time to be living,
Life was so exciting, fulfilling and free
You could do whatever research that you wanted,
And no word had been heard of RAE.

But most of us had never met a neutron,
Didn't even know what they did,
Let alone how to find and then use them
'Til the good men of Harwell raised the lid.

Their teamwork was really tremendous
When they invited us onto the site
To learn all about using those neutrons,
Then ensuring we did everything right.

But most of us were pretty darned ignorant
And our students the same – but much more
So some really good training was needed
And this brought young Terry to the fore.

The Harwell Neutron Schools were started
And it's now plain for the whole world to see
What a great contribution they've made
In bringing us right to the top of the tree.

So Terry, we congratulate and we thank you
For your achievements over all of these years
With your excellence, good humour — and stamina
You are honoured among all of your peers

Now my final remark of the evening
In keeping things brief — as I should —
Is that it's clear when I look at you oldies
That Neutrons – they do you Good!

So I now propose a toast to Terry –
Please be upstanding and raise your glass
And we'll drink to his health and his happiness,
This gentleman of science and rare class!

CEDRIC HERBERT HASSALL (1946) died on 5 September 2017. The following is a summary of Cedric's academic life retyped from the preface to the book *A Career in Chemistry* presented by friends and colleagues to mark his retirement (December 1984) and published in a tribute book to his memory, prepared by June Hassall, and David and Liesl Trotter and other members of the New Zealand family:

It is a great pleasure to be able to present a short tribute to the career of our valued colleague Dr Cedric Hassall to mark this, the occasion of his retirement. His working life has spanned a momentous four decades and witnessed an expansion in scientific knowledge unprecedented to human history. At the outset of his career, as a lecturer in Otago, New Zealand, infectious diseases such as tuberculosis and smallpox ravaged the world, antibiotics were hardly discovered, and the newer sciences of molecular biology and bioorganic chemistry were unthought-of. It is to his great credit that Cedric has been able to match his scientific contribution to the pace of these developments.

The overriding thrust of Cedric's career has been directed towards the organic chemistry of molecules of potential value to medicine arising, no doubt, from a deeply felt desire to contribute to both science and the welfare of his fellow men. The realisation that bioactive natural products could have much to offer in this respect was reflected in the first phase of his research in the mid-1940s. These studies into plant metabolites helped lay the basis for generation of the polyketide hypothesis of Robinson Birch and led to a significant interest in the Baeyer Villiger reaction. These initial themes were developed by a move from his native New Zealand to study with Alexander (now Lord) Todd in Cambridge, England, where efforts concentrated on fungal metabolites.

The attainment of a PhD in 1947 was followed by his appointment as foundation professor of chemistry at Kingston, Jamaica, at the University of the West Indies, a position he held until 1956. Interest in chemistry switched at this time to studying natural products derived from organisms indigenous to that area. These included the cardenolides, an unusual group of cardiac glycosides, several groups of alkaloids and the monamycin antibacterial antibiotics. Undoubtedly the greatest contribution of this period, however, was the isolation and characterisation of hypoglycin, which was shown to be responsible for Jamaican Vomiting Sickness. No doubt an awareness of the association between this material and the ackee, a locally consumed fruit, saved many lives and contributed significantly to an understanding of hypoglycaemia.

The West Indian period ended when, in 1957, Professor Hassall was appointed to the chair of chemistry at University College Swansea. From small beginnings in inadequate buildings, Cedric oversaw the design and construction of the largest science department in Swansea and achieved recognition for studies into the biosynthesis of fungal metabolites and of synthetic and natural bioactive peptides. In this highly productive period, research was conducted into the conversion of sulochrin to geodin, into asterric acid and into the biosynthesis of goedoxin, thereby stimulating an exploration of the chemistry of intramolecular free radical coupling of phenols and the use of blocked mutants for the elucidation of natural product biosynthetic pathways. These interests evolved to embrace the synthesis of biosynthesis of the tetracycline antibiotics.

A parallel interest in peptides and peptide mimetics stemmed from the earlier work on hypoglycin and monamycin. In particular the successful isolation, characterisation and synthesis of the latter was a major achievement, and though the monamycins were too toxic for human use they led to the discovery of piperazic acids, which form the backbone of a new class of antihypertensive drugs. Simultaneously, studies commenced on the synthesis of novel cyclic peptides. This provided new

knowledge on the chemical procedure for such syntheses, and revealed aspects of structure and conformation which, among others, were indicators pointing to the link between the growing science of molecular biology and synthetic organic chemistry.

These earlier studies matured during the last decade when Cedric accepted the post of director of research at Roche Products Limited, the UK subsidiary of the pharmaceutical giant, F Hoffmann La Roche. Here we witnessed a fusion of his scientific and administrative talents as he oversaw the growth of a major research centre of over 200 scientists, served by excellent new laboratories and employing advanced techniques for drug design, including one of the first molecular graphics facilities in the UK. His longstanding research into phenols and tetracyclines developed into a programme on synthetic anti-cancer anthracyclines; the monamycin studies led eventually to the anti-hypertensive inhibitors of angiotensin-converting enzyme and the peptide interests led, among others, to projects in arthritis, emphysema, and the phosphonopeptide and antibacterial agents. Through these successes Cedric has been in increasing demand at international meetings and has been a keen exponent of molecular graphics as a way to further new drug discovery.

Although this is but a brief tribute, some vital statistics to reflect Cedric's wider contribution to chemistry need to be included. He was born in Auckland in 1919, graduated in 1939, completed an MSc in 1941 and a PhD in 1947. Greater academic recognition was reflected in the award of DSc (Cambridge) in 1966 and an honorary DSc from the University of West Indies in 1976. Further evidence of his administrative skills and scientific esteem have been his numerous honorary and visiting professorships at the universities of Aleppo (1965), Abdul Aziz in Saudi Arabia (1966, 1968), Kuwait (1969, 1979), a Royal Society visiting professorship to India (1969–70), Liverpool (1971–79), and University College London (1979–present). In addition he served as a commissioner to the Royal University of Malta and a planning adviser to the University of Jordan. Prominence on the UK chemical scene has been enhanced through membership of the council of the Glasshouse Crops Research Institute, membership of the Science Research Council's chemistry and enzyme chemistry committee (1968–72) and as a member of the Biological Research Advisory Board to the Ministry of Defence (1971–74). Cedric has also served on various committees at the Royal Society of Chemistry and was the founder and first chairman of the Euchem Bioorganic Chemistry Symposium at Gregynog, an international meeting which has been held annually with great success since 1966. Cedric can, therefore, take pride and satisfaction in being a true cosmopolitan in the world of chemical science, a chemical educator, a policy maker and not least an astute architect of the future.

Finally a word about the person behind these achievements. From the description of Cedric's career with its emphases on immense professional energy, deeply held convictions, administrative and management skills of the highest order and the cut and thrust of industrial research one might expect a hard and perhaps unfeeling individual. But those who know him well are aware of his other more human qualities. He is a good companion, widely read, entertaining and humorous. He has often shown great compassion and understanding especially to colleagues in times of misfortune. But perhaps most significant of all has been his willingness to shoulder responsibility in order to protect those working with him from the harsher realities of university or company life. In so doing he has created more highly motivated, stable and fruitful research teams than would otherwise have been possible.

These few words hardly do justice to a person of this quality but, fortunately, Cedric will continue to contribute actively through his professional, consulting and teaching commissions. This is the place to thank him for all he has done in the field of chemistry over the past 40 years and to wish him a retirement full of interest and rewarding activity.

WALTHER ERICH RUPERT MARIA SCHWARZACHER (1949) died on 17 March 2018. We have received the following obituary from his wife, June:

Professor Walther Erich Rupert Maria Schwarzacher was born in Graz, Austria on 2 March 1925, the second son of Professor Walther and Hedwig Schwarzacher. As a child, he lived in Graz, Heidelberg and then in Graz again. In 1938 Hitler invaded Austria and Walther's father was thrown out of his position as professor of forensic medicine at the University of Graz. The family spent the war years living in internal exile on the Wallersee, a lake near Salzburg. This was a hard and dangerous time, but also in many ways a happy one and Walther always loved the Salzburg area. He had many interests, including helping his father with scientific investigations and studying the local geology.

When the war ended, he moved to Innsbruck to study at the university there. He completed both his undergraduate studies and his doctoral dissertation in a total of only four years. His doctorate was supervised by the distinguished geologist, Bruno Sander. Walther greatly respected Sander and was proud to be able to name a glacier in Spitsbergen after him. He won a British Council scholarship to Cambridge, where he became a member of the university's Natural Sciences Club, made life-long friends and participated in an expedition to Spitsbergen. While in Cambridge, his adviser, Percival Allen, suggested that he apply for an open position at Queen's University Belfast, where he remained for the rest of his professional life, starting as an assistant lecturer before being promoted to lecturer, reader and eventually professor, when he was appointed to a personal chair.

His research was inspired by a deep interest in time, and how it could be read from the geological record. He was one of the first to find evidence for Milankovitch cycles, periodic variations in the earth orbit, in the thicknesses of sedimentary beds and was a founder of the field of mathematical geology. His interest in time also extended to shorter intervals, as one of his later hobbies was to build clocks that worked using the radio signal broadcast from atomic clocks such as the National Physical Laboratory's Rugby clock. He maintained his interest in Arctic exploration, leading a Queen's University expedition to Spitsbergen and spending time on ice station Alpha during the International Geophysical Year 1957–58 with his great friend Norbert Untersteiner.

Back in Belfast, Walther was living in university accommodation in Elmwood Avenue. In 1963, he met a young assistant lecturer in botany, June Whish, and in August of that year they were married. They had two sons, Walther (who later also became an Emma member [1983]) and Martin. In addition to his new family responsibilities, Walther continued his teaching and research. He spent sabbaticals at the Kansas Geological Survey and at the Christian Albrechts University Kiel. He wrote two books on stratigraphy as well as book chapters and many articles. He was recognised for his scientific contributions by the award of the Krumbein Medal of the International Association for Mathematical Geology and by his appointment as a corresponding member of the Austrian Academy of Sciences. However, probably his greatest recognition was the respect and affection in which he was held by colleagues young and old around the world.

Although he retired officially in 1990, he remained active in research almost to the end of his life. He and his wife participated in many conferences and workshops, which they both enjoyed, in locations ranging from China to Brazil. Both appreciated the warmth with which they were welcomed in so many places. He was always an interesting person to talk to – he thought deeply about subjects from politics to religion – and greatly enjoyed both music and painting. Although he could make sharp comments when he disapproved of things, he was truly a good and kind man, who will be greatly missed.

DAVID MICHAEL GRIFFIN (1950) died on 13 August 2017. The following obituary has been sent to us by his wife, Margaret:

David was born on 18 October 1929 in Plymouth, Devon, being the second child of Stanley and Ada Griffin. He was educated at Plymouth College, commuting there for much of the Second World War from a village on the edge of Dartmoor to avoid the heavy night-time bombing of Plymouth. Here started David's life-long love of countryside, and of high hill areas in particular and of long-distance-walking in them. From school, David was conscripted into the army for 18 months' national service, serving for most of the time as a sergeant in the Royal Army Education Corps. At the end of training David was posted to the brigade of guards' training depot, where his main task was to teach the three Rs to illiterate recruits so that they could read company orders and other simple instructions: not really a straightforward task! (If 'B-O-Y spells Boy what would T-O-Y spell?' Immediate answer: GIRL.)

All this was in stark contrast to his previous life and to that which followed in 1950: Emmanuel College, Cambridge, to which he had obtained a state scholarship. (Latin, classical Greek or Sanskrit was still needed for entry!). There he studied the natural sciences, particularly botany, and on graduation obtained a UK Forestry Commission research studentship to undertake research on plant diseases under the supervision of Dr S D Garrett, FRS.

Even before completing his PhD, David was invited to accept a position as lecturer in plant pathology at the University of Sydney and he migrated there in 1955, completing his PhD in Australia. David met Margaret Burford at Congregational conference and they married in 1957, the beginning of a long, loving, harmonious partnership. Their son, Stephen, died at birth and they adopted Michael, Philip and Anne. Philip died tragically in 2007.

David's research interest soon focussed on the role of physical factors on the ecology of soil fungi and he with a succession of research students produced over 60 publications on these topics, including a book (*Ecology of Soil Fungi*, 1972). An international reputation was gained and in 1969 David submitted 23 published articles to the degree committee of the faculty of biology, University of Cambridge for assessment for award of the degree of doctor of science (ScD). (The submissions must give 'proof of distinction by some original contributions to the advancement of science'). David was awarded the ScD in 1970.

A former student, Dr Percy Wong, honoured David in 2012 by naming a newly described fungus, *Magnaporthe griffinii*, after him.

In 1968 David was awarded a Royal Society and Nuffield Foundation Commonwealth bursary, which allowed him to travel to Great Britain and work at the Commonwealth Mycological Institute in 1969, improving his knowledge of the taxonomy of soil fungi.

David and Margaret decided that a change from Sydney would be welcome and in 1970 he was successful in obtaining appointment as the Foundation Master of Burgmann College, a multidenominational residential college in the Australian National University, Canberra. The position was supposedly half-time, the other half being available for academic pursuits. For these, David chose the Forestry Department and his research group moved there with him from Sydney, continuing work on fungal ecology. Two supposedly half-time positions proved to be a considerable overload, so David applied successfully for the chair of forestry when it became vacant in 1975 and ceased his appointment at, but not association with, Burgmann College.

David's appointment in forestry soon led to an unexpected change in his main research interests. He was asked by the then Australian Development Assistance Bureau (AIDAB) to advise on possible aid to the forestry sector in Nepal and then to formulate a project for Australian implementation. Hence began the Nepal Australia Forestry Project, with a strong emphasis on the role of trees in quasi-subsistence agriculture. David was the project director for 16 years and guided the work of many Australian foresters appointed to the project with funding by AIDAB or its successors. He visited Nepal more than 20 times, accompanied by Margaret on two occasions, and trekked extensively through the Middle Hills where the project was located, mainly in the catchments of the Indrawati and Sun Kosi. Here there are great variations in topography and elevation, from about 200m at the southern edge of the Mahabharat Lekh to about 2000m at the upper limit of cultivation, then to transhumance grazing lands and then the Himalaya. Water was often needed to be brought to forest nurseries, and with little extra work and cost could be extended to the centre of villages, to the great pleasure of women and children. At one such endpoint, in the village of Tokarpa, a concrete plinth holding a tap has been carved stating in both Nepali and English: 'This tap was constructed by the Government of Australia and an inhabitant of her named Prof Greefan 1978'.

In 1985 David with two project staff members undertook his longest walk, trekking up the then largely dry Kali Gandaki Khola, a major antecedent river running south through the main Himalaya. On one side are the peaks of the Annapurna massif, on the other those of Dhaulagari, all over 8000m high. David reached Muktinath Phedi (4070m) on the edge of the Tibetan plateau to check on an earlier report concerning the need for trees and other biomass in this low rainfall, high altitude area. Then followed a six-day walk of about 100km back down the northern part of the Kali Gandaki, then across the Ghorapani Pass into the Modi Khola and eventually to Pokhara.

The project's work, and that of associated ANU PhD students, largely changed the hitherto held vision of the role of trees and forests in the hills, and resulted in the publication of over 20 articles and one book (*Innocents Abroad in the Forests of Nepal: An Account of Australian Aid to Nepalese Forestry*). This work became widely known and led to David's advice being sought in many ways in Asia and even in Africa, leading to further extensive travel and much committee work with FAO/UNDP and the Asian Development Bank.

Throughout this time at the Australian National University, David served on many important committees, often as chairman. In the years before retirement, he was a pro vice-chancellor and chair of the Board of the Faculties.

On the nomination of its council, David was elected a Fellow of the Royal Society of Arts (FRSA) on 10 October 1975. The society was founded in 1754 'to extend and disseminate all branches of practical knowledge'. 'Royal' was added to its name by a Royal Charter of Incorporation granted by Queen Victoria in 1847.

For as long as David could remember, as Christian and scientist, he stood in awe of *mysterium tremendans*, which is the universe in which we live. To grasp it fully is impossible. To comprehend our relation to the universe's creator and sustainer has been the never-ended task of all religions. To David's surprise he found a passage in Rose Macauley's *The Towers of Trebizon* that spoke strongly to him:

> I would go into some church or other, and the Christian Church would build itself up before me, and around me, with its structure of liturgical words and music which was like fine architecture being raised up into the sky, while the priests moved to and fro before the altar in their glittering robes and crosses and the rows of tall candles lifted their flames like yellow tulips, and the incense flowed about us. Here was the structure, I would think, in which the kingdom was enshrined, or whose doors opened on the kingdom, and sometimes the doors would swing ajar, and there the kingdom was, clear and terrible and bright, and no church is able for it, and can do no more than grope. Churches are

wonderful and beautiful, and they are vehicles for religion, but no church can have more than a very little of the truth. No faith can be delivered once for all with no change, for new things are being discovered all the time and old things dropped. We have to grope our way through a mist that keeps being lit by shafts of light, so that exploration tends to be patchy, and we can never sit back and say we have the Truth, this is it, for discovering the truth, if it is ever discovered means a long journey through a difficult jungle, with clearings now and then, and paths that have to be hacked out as one walks.

In the fifteenth century an Italian priest, Vincent Celle, wrote: 'the gift of faith does not necessarily include the gift of certainty', a thought that resonated with David; yet for him, amongst all the uncertainties, Christianity was the Way.

LESLIE JOHN HART (1950) died on 10 May 2018. We have received the following obituary from his wife, Margaret and daughter, Ann:

Leslie Hart passed away in May 2018 after a lengthy and courageous battle, leaving behind his wife Margaret of 66 years, his daughter Ann and his brother Mark.

Leslie graduated from the University of London with a BSc in chemistry in 1950. From there he went to Cambridge and received a diploma in agricultural science in 1951 from Emmanuel College, and concluded his qualifications in 1952, receiving a diploma in tropical agriculture from the Imperial College of Tropical Agriculture in Trinidad. This education took him to East Africa with his new wife to work on a coffee research station as a soil chemist and where, two years later, his daughter was born. A few years after this he changed careers and started working in the oil industry, which provided him and his family the opportunity to travel to many places around the world.

After 13 years in Africa the family moved to British Columbia, Canada where Leslie continued to work in the oil industry, becoming one of the top lubrication specialists. When he finally took early retirement at the age of 56, Leslie got to enjoy the hobbies and pastimes he had developed over the years.

Leslie had a natural talent as a woodworker, having started making toys as a child from scraps of wood. Over the years he became a self-taught master woodworker, creating the most exquisite pieces of furniture. He also became a master rock-wall builder, creating any number of magnificent rock and concrete structures. Always a practical man, he, in the words of his daughter, 'could fix anything', and indeed he could from car engines to dolls' houses.

Leslie had the envious privilege of enjoying over 30 years of retirement before being called to the other side of the rainbow bridge. He is profoundly missed by his family and the many, many, many friends he made along the road of life.

DAVID IAN SMALL HINTON (1950) died on 25 October 2016. The following obituary has been sent in by his stepson, Miles Nichol:

Ian grew up in Pinner and was educated at Merchant Taylors' School in Northwood. Upon leaving school, he joined as a lieutenant in the Bomb Disposal Squadron defusing bombs around London following the end of the war. He was awarded a scholarship to Emmanuel College in 1950 to read for the engineering tripos with a final year in aeronautics. He played in the college rugby team throughout his time and was captain in 1952–53.

Ian joined BICC plc, a cable manufacturing and construction business, in 1954, successfully rising through the organisation to become an executive director in 1971 and chairman and Managing Director BICC Technologies in 1975 responsible for all industrial noncable-making operations in the UK and US. He remained an executive director of BICC until ill health forced early retirement in 1984.

In 1985, Ian was appointed chairman of East London Telecommunication Ltd, part-owned by Ferranti, Robert Fleming, 3i, GEC and Prudential, installing and operating a telephone and cable TV system in East London and Docklands. He was responsible for the overall performance, strategy, raising venture capital and bank loans, and growing the business to enable its final sale to a US telecoms company. Also, as a nonexecutive director, he steered Rotunda plc through a management buyout, float on the United States Cellular Corporation USM and to final sale. Subsequently he became involved in various businesses at the request of 3i plc, and was appointed chairman of a property development and a gas turbine filtration businesses, and nonexecutive director of an electrical and office service company. He thoroughly enjoyed this work, making full use of the management and financial skills he had developed in his earlier career. He remained a nonexecutive director into his mid-70s.

He was a Fellow of the Institution of Electrical Engineers and a Chartered Engineer.

As captain of the seniors at Cowdray Park Golf Club, Midhurst, he directed the redevelopment of the new golf clubhouse with restaurant and function rooms. He enjoyed literature and music especially classical; loved cricket; and was a devoted supporter of Manchester United as well as a single-figure handicap golfer.

Ian was generous, dedicated and hardworking in all his endeavours throughout his life. He was a true gentleman and exemplar. He passed away peacefully, following heart surgery, with his wife Pauline by his side. He is also survived by his son David and his grandchildren. He is greatly missed by all his family and friends.

RAYMOND WILLIAM GEORGE LONG (1950) died on 12 December 2017. His wife, Anne, has written the following obituary:

Raymond was born in Reading and educated at the Quaker Leighton Park School in the town. He was awarded a place at Emmanuel to study engineering, one month prior to his seventeenth birthday.

National Service was spent with REME for the two years before taking his place at the college in October 1950.

He recalled how it was hard to keep abreast of the coursework and lectures in the morning with the afternoons being spent, in his case, at the boat house, with study in the evenings. The life compared to that of his grandchildren was controlled by rules and regulations, so different from their time at university and outlook.

From Emmanuel he went to the Bristol Aeroplane Company as a development engineer on aircraft jet engines. Whilst here he became a proficient and respected navigator on the car rally circuit. A move to Armstrong Siddeley followed, again working on aircraft engines. Family circumstances meant a move back to Reading and employment at Robert Corts, working on valves for the gas industry.

Another move followed to the vehicle repair industry, where he became chairman and managing director of a well-established, albeit ailing, family company. He turned around the fortunes with great fortitude. He was rewarded with membership of the IMI, the vehicle builders' and repairers' association, becoming their national chairman and also a life member (one of only four such awards being given). He was on the governor's consultative board of the Reading Technical College, a founder member of the Rotary Club of Caversham and a Liveryman of the Worshipful Company of Carmen, all of which gave him great pride.

His interest in rowing continued throughout his life and he was a member of steward's enclosure, Henley, and he attended annually.

Having been diagnosed with cancer he gained much peace and comfort from the spirituality found by walking the last 130 miles of the Camino to Santiago, not just the once but four times.

He was always aware the great start in his career he gained from his time at Emmanuel.

THOMAS GRINDLEY (1951) died on 4 March 2018. The following obituary was written by a close friend, Jim Wilkes (1951, Bye-Fellow):

Thomas Grindley ('Tom' to his friends) was an undergraduate at Emmanuel College from 1951 to 1955, reading natural sciences for Part I and the two-year chemical engineering programme for Part II, in which he obtained a first-class degree. Tom grew up in a farming family in Cumberland, which imbued him with a strong work ethic throughout his life. He was a member of the Emmanuel College Natural Sciences Society and for Cambridge University he obtained a Half Blue in throwing the discus.

The Chemical Engineering department was in its infancy when Tom joined it, and he quickly became popular with both its faculty and students. He was elected secretary of the university's Chemical Engineering Society, helping to organise both lectures and plant trips for his fellow students.

In 1955, Tom spent a year at the Georgia Institute of Technology in Atlanta, obtaining his MSE degree in chemical engineering. After navy service, he worked for Humphreys and Glasgow, the British engineering consulting firm. After a brief stint with Exxon in the United States, Tom obtained a PhD from Stanford University, and then remained in the USA. He then worked for many years as a chemical engineer, first with the US Coast Guard in Groton, Connecticut, and finally with the US Department of Energy in Morgantown, West Virginia.

Tom retired to Laurel, Maryland, and at the time of his death he had just completed, with a friend, a 15-year project that resulted in a vast database that approached 100,000 entries on families in Cumbria. He also attended several Emmanuel College receptions held in New York and Washington.

Tom is survived by his sister, Jean, and brothers, William and John, and their families.

DAVID GARNETT CODLING (1952) died on 24 May 2018. We have been sent the following eulogy from his wife, Alice, which was delivered at his funeral:

David was born in Bolton, Lancashire on 4 January 1933. He attended Bolton School and won an exhibition to Emmanuel College Cambridge to read modern languages.

Immediately after graduation David was called into National Service to serve for two years in the Royal Tank Regiment, initially in Catterick and then also in Munster Germany.

David's great interest in transport led him to a training period with Ribble Motors' Preston depot and the Chartered Institute of Transport qualification, where he won a medal for a paper he wrote. During his time at Ribble Motors he met his future wife, Alice, who worked in the enquiry office. They were married in 1962 and moved to Ulverston, Cumbria, where David was district traffic superintendent for Ribble Motors throughout the Furness area. It was in Ulverston that Anne, their first child, was born.

Next came a move to Stratford-upon-Avon to be manager of Stratford Blue Motors. After five years there he was appointed traffic manager of Yorkshire Traction Company (White Rose County).

David's delight came next: a move to Scotland to work with Edinburgh City Transport. During this time a second daughter, Mary, was born. He settled in Portobello with his family and became highly involved in St John's parish as chairman of the parish council for several years, a starter member of the Link Group as coordinator of the Joppa area, founder member of the Bereavement Group, coordinator of the Covenant scheme, chairman of Portobello Council of Churches and, best of all, a proclaimer of the Word of God, which he did to perfection. David delighted in being in Scotland and visited many areas every year, one of his favourites being Rothiemurchus and the Caringorms.

David took early retirement in 1994 and began to relax and enjoy his many interests, such as jogging on the many routes he had planned around the area, learning more languages such as Polish, Russian and always more German. He loved to plan holidays, especially travelling in Europe. He enjoyed crosswords, especially winning them, and walking the dog.

David was a kind, loving, person and would always make a special effort for those in need. His wry sense of humour was infectious and would often defuse a situation and bring joy to those who knew him.

He was a perfect gentleman in every way, a devoted husband and father to Anne and Mary, father-in-law to Duncan and Simon, and loving grandad to Callum, Alistair, Ailsa and Grace.

We will miss him terribly, but know he is now at peace in the Lord.

ALEXANDER GEORGE METHVEN (1952) died on 5 April 2016. We have received the following obituary from his wife, Marie:

Alex was born in Melbourne of Scottish descent, was orphaned when eight years old and then reared by his grandparents. He was educated at Wesley College in Melbourne and completed a theological course at Ridley College, Melbourne. He then worked and saved enough money to enable him to travel to the UK and complete a Bachelor of Divinity (BD) London and the tripos at Cambridge, where he was a member of Emmanuel College. These years were some of the happiest of his life.

He was ordained at Ely Cathedral in September 1952. He then worked in the Abbey Church near Cambridge, married and eventually had four daughters, who now reside in the USA. He joined the Royal Air Force and served at Halton as a padre to the cadets before being posted to Edinburgh Field, South Australia for three years. He returned to the UK in 1960 and served as parish priest in Sydenham for some years before accepting a call to a parish in the USA in 1968. After some years, with four daughters to educate, he formed a company, Career Development, which enabled him to make contact with many folk outside the church. He worked in most of the States helping thousands of men and women to make most of their given abilities at a time of upheaval and ethnic unrest. He continued to do parish work at weekends until he returned to Australia in 1990, where he was offered a lectureship in business ethics at the Monash University Business College in Mt Eliza near Melbourne.

He remarried prior to returning to Australia and lived at Belgrave in the Dandenong Hills just outside Melbourne, and was able to continue with his Christian ministry on a pro bono basis, which saved two churches from being closed by the diocese because of debt. Each year he and his wife travelled overseas to visit his daughters and seven grandchildren and then on to the UK. As well, they spent much time enjoying life in the Flinders Ranges to which Alex had taken many of the young RAF airmen kangaroo-shooting while at Edinburgh Field.

After developing Alzheimer's disease, his last few years were spent in the nearby Martin Luther homes. Wherever he went people were drawn to his ministry and he continued as Christ's servant until his death. It was a life well lived for his Lord to whom he had dedicated his life when confirmed in 1941. In June a private service for the interring of his ashes was held at the parish church of All Saints, Selby near his Belgrave home. His four daughters had made the journey to be present and to honour his life of nearly 90 years.

KEITH WALLIS WARREN (1952) died on 16 August 2017. We have been sent the following tribute, which was read at his funeral service:

To Keith Warren science was not about cutting-edge theories but about finding practical ways to solve problems people faced every day and helping to make their lives a little better. Although, as we shall hear, he was passionate about sharing the

wonders of the scientific world, he also had a love and compassion for children, eager that each should have as many opportunities as possible. With Julia by his side, the couple sought to make a difference to our world and Keith left his heart in Africa when illness forced a return to England.

Ever practical, Keith had prepared a short chronology of his life, which I would like to share.

Born on 1 September 1933, Keith grew up in the county of Derbyshire. He studied at Emmanuel College, Cambridge, gaining a master of arts degree.

His hobbies included rock climbing and it was during one such expedition that he met his wife Julia. She also loved the challenge of a climb and stopped to help Keith, who had sprained his ankle jumping over a wall. The rest as they say is history, the couple marrying in their home town of Ripley in December 1956, a union that has lasted for 61 years.

Keith joined the Royal Navy, first as a sub-lieutenant followed by lieutenant. His final role was as education officer, teaching radio and radar.

Now qualified as a physics teacher, Keith's next port of call was Winchester College, followed by time in Morayshire at Gordonstoun School. During this time he and Julia became the proud parents of Kathryn, Robert and Gerard.

Scotland was a very cold environment in which to raise a young family, however, and Keith took them on a banana boat to Jamaica. Here he spent three years working in a secondary school in the south-west of the island, before lecturing at the University of West Indies, based in the capital Kingston.

Returning to the UK following six years of sunshine, the family settled in a draughty house in Ripley. Keith would share his time between research at Imperial College, spending time with his family and attempting the numerous DIY tasks required to improve their home.

Contacted by the United Nations Educational Scientific and Cultural Organisation, Keith was then on the move again, first to New York followed by Paris and Copenhagen.

He was then employed by UNICEF, advising on science apparatus for schools in developing countries. Over a period of seven years UNICEF sent him to India, Sri Lanka, Afghanistan, Nepal, Singapore and Bangladesh, advising schools on how to use or make school science equipment out of local resources.

This role led to a more permanent position as UNICEF consultant to the government of Mozambique, based in its capital Maputo. Three years later, disenchanted with the bureaucracy Keith, accompanied by Julia, went up-country to Niassa Province, despite the dangers of a civil war that was raging at the time. Thanks to funds raised from agencies in Norway and Sweden as well as from the British Embassy, Keith was able to set up programmes encouraging young people to engage in a variety of activities, which included science, technology, music and film-making.

Keith frequently wrote about his experiences abroad. This story highlights a visit to a village school in Mozambique:

'Science' in Keith's own words

> There is a general complaint in southern Africa that schools have no laboratories, no science apparatus. As a result, the majority of them do no practical science, just theory they find uninteresting and generally not understandable. I hear you have the same problem in England. But our group's speciality is to show that this is the wrong way to look at it. There is an alternative: to find opportunities that use local resources for experiments.
>
> One of the pleasantest parts of our work is to go to a village where we are going to demonstrate science to children, sitting on a log under a tree. We arrive with nothing in our hands; we do not want to import any non-local things except ourselves.

> 'Let's go and buy a battery' we say to the little group of children. We wander with them to the market: two little stalls, one with vegetables and fruit, and the other with common things like soap, matches, batteries and so on, where we buy a common torch battery; this is our only investment for the day. Then we bargain for a three-inch nail. The stall holder wants to sell us a dozen but we settle for just two. 'Go on, take them' he says. 'We know you are helping to teach our children.' 'Thanks' we say, 'and would you throw in three of those other little nails', and he does. On the way back to our tree we pass a piece of rather rusty chicken netting. 'Nationalise that' we say, and the children laugh and bring it.
>
> Then comes the main part of our little drama. Two of the children undo some of the chicken netting to get a yard of wire – fiddly work but not difficult – and pull it back and forward to eliminate its wrinkles over an edge of the log we are sitting on. They wrap a bit of newspaper round the shank of the nail. That is the insulation. Then they wind the wire over the paper, making sure that adjacent turns do not touch. Then when the nail is full, they wrap round another layer of paper and another winding of wire. Finally they wrap a third layer of paper and wire, until the yard of wire runs out. They connect the ends of the wire to the battery and … they have an electromagnet that picks up little nails.
>
> Everyone has a go. 'Magic' they say, delighted. 'No', we say gravely: 'science'.

Several of these activities are displayed on a website Keith set up called theafricanexperimenter.org.

During this time the Queen appointed Keith MBE for services to the community in Mozambique.

Twelve years later, Keith and Julia returned to Maputo. Keith became a consultant at the Universidade Eduardo Mondlane, based in the informatics centre, but he missed contact with children and left after a year. This time he set up a practical science and technology centre in the village of Catembe across the estuary from Maputo, providing children from poor schools with opportunities in practical science as there were none available otherwise.

Health issues, however, led to Keith and Julia returning to Market Harborough in 2007, settling near to Kathryn but, as I said before, Keith's heart remained in Mozambique. He kept in touch with the centre at Katembe for a while and made some DVDs and short films of scientific experiments and demonstrations, several available to view on his webpage.

Keith's legacy is the passion he had for science and his determination to make it available for all. He set about reaching out to those who have little but their inquiring minds. And in this goal he was successful. Supported by Julia, the couple travelled the world. Practical, realistic, outgoing, cheerful, Keith was always trying to help others. Never materialistic, he was always keen to use materials around him, limiting his footprint on our earth. But aside from his achievements, he was a much-loved husband, father and grandad, and it is for these reasons that Keith will be missed the most.

BRIAN JOHN HILL (1953) died on 5 November 2017. We have received the following obituary from his son, William:

Sir Brian was born on 19 December 1932 in Petts Wood, Bromley and was educated at Stowe School. Following National Service he went up to Emmanuel College, Cambridge to study land economy. He qualified as a chartered surveyor before joining the construction company Higgs & Hill plc in 1957. He was the seventh generation of his family to enter the building industry. He was appointed managing director in 1972 and then chief executive and chairman before retiring from the company in 1992. Some of the construction projects carried out during his time there included BBC Television Centre, Queen Elizabeth Hall, the Hayward Gallery, the South Bank Television Centre and the Mound Stand at Lord's.

During his career, Sir Brian held many positions within the building industry. He was national president of the Building Employers' Confederation; following in the footsteps of his father and grandfather he was president of the Chartered Institute of Building (1987–88), a main board member of the Property Services Agency, chairman of Vauxhall College of Building and director of the London Docklands Development Corporation. He was also a past master of the Worshipful Company of Chartered Surveyors. He was knighted for his services to the construction industry in 1989.

He advised on the extension to Great Ormond Street Hospital for Children, becoming a director in 1984. He was appointed chairman of the board in 1992 and then became chairman of the trust board until stepping down in 1997. He was made an honorary fellow of the Institute of Child Health in 1997. From 1997 to 2008 Sir Brian was chairman of The Children's Trust, Tadworth. The trust is the leading UK charity for children with brain injury. He was also a trustee of the Falkland Islands Chapel at Pangbourne.

Sir Brian moved to Kingswood with his wife Janet and three children in 1967. He was an active member of the community from the early days becoming church warden at St Andrew's Church Kingswood, a governor of Aberdour School and chairman of the Kingswood Village Community Association. He took many theatrical roles in plays and pantomimes at the local village hall and his dramatic rendition of a panto 'baddie' was legendary!

Above all, Sir Brian was known for his immense kindness and generosity. He was an unassuming man but was held in high regard by all those who met him, both in the business world and in his personal life. He always took time to help others in his community and was often the first person to appear in times of crisis, usually clutching a handful of sweet peas, picked fresh from his beloved garden.

He will be missed by all that knew him but especially by his loving wife, Janet, his three children and his 11 grandchildren.

FRED TOWERS (1954) died on 24 December 2017. We have received the following tribute, which has been written by his three daughters:

Fred was born in Blackburn, Lancashire on 24 April 1934: he would have been 84 this year. He studied at Queen Elizabeth Grammar School for Boys, where he developed a keen interest in languages and bicycles.

In 1954 he won a scholarship to Emmanuel College to read modern languages. Not long after settling in at Emma, he joined the university's Cycling Club. He was an enthusiastic scholar and sportsman, and Cambridge proved to be a place where he could pursue both his passion for languages and that of cycling.

Whilst at Emmanuel, he met his future wife, Margaret Pitt. Margaret was from Haslingfield and was one of the few lady cyclists racing on the Cambridgeshire roads in the '50s. They quickly fell in love and were married in Geneva, Switzerland in July 1958.

After graduating and completing his military service in the Royal Navy, Fred followed in his father's footsteps and went into the textile industry. Together with Margaret he moved to Scotland for business reasons and they both became members of the Glasgow Road Club. In 1964 the first of three daughters arrived, Anita, followed by Sandra in 1968. In 1969 a work promotion moved the Towers family to Manchester, and three years later in 1972 a third daughter was born, Lorna.

Fred's life was dedicated to being a devoted family man, a much-valued colleague, an active cyclist, and a caring and loyal friend. He somehow found a way to connect and keep in touch with everyone.

He passed away very close to home in Solihull, West Midlands on 24 December 2017. Right up to the end he retained his wonderful composure and sense of humour,

and was still getting enjoyment out of his favourite things: cycling, snooker, bird-watching, music, family and friends.

Fred's funeral was held in Solihull on 30 January 2018 and was attended by his family and many friends. Some had travelled far to be part of the farewell ceremony; amongst them were friends from his undergraduate days at Emmanuel and members of the Cambridge University Cycling Club oldies. His final wishes were for his ashes to be interred in All Saints' churchyard in Haslingfield, alongside his beloved wife Margaret.

He is missed by everyone and in particular by his three daughters, their families and two grandchildren. He spoke often of his time at Emma and how much he loved Cambridge, and he would have been honoured to know a tribute to his life had been published in the *Magazine*.

ALEXANDER DOUGLAS DRYSDALE (1955) died on 16 April 2017. We have received the following obituary from his daughter Margaret:

Born in Glasgow, Douglas took his first degree in agricultural science at Glasgow University, followed by a year of postgraduate study at Emmanuel College, Cambridge and a further year at Minnesota University in America. Upon his return to Scotland he began working at the Hannah Research Institute in Ayr, where he gained his PhD. He was then offered a job with BP Chemicals in London, where he worked for 30 years travelling all over the world to share his expertise on crop preservatives, silage and fertilizers. He took early retirement in 1984 to spend time in his cottage on the beautiful Isle of Arran with his wife Margaret (who passed away eight weeks before him), his three children and nine grandchildren.

BARRY HUXLEY LACEY (1956) died on 20 January 2018. Extracts are given below from obituaries written by his wife, Tessa, and his sons James and Charles:

His wife writes:

Barry was born in Old Couldsdon, Surrey in 1936; sadly the family home was then bombed, which prompted them for safety reasons to move to Wiltshire. It was here that Barry attended Chafyn Grove Prep School in Salisbury, then moving on to Marlborough College. After completing his National Service with the Royal Engineers, he took up his place at Emmanuel College, Cambridge to read mechanical sciences. His reference was written by Lt Colonel W H Simpson, a very decorated officer who had known Barry since 1941 and spoke very highly of him. On going up Barry took rooms on T staircase in North Court, a comparatively recent addition to the college completed in 1914. He was supervised by Ken Roscoe of Emmanuel, who went on to become a Fellow.

From an early stage of the Michaelmas term 1956 Barry participated actively in college life. He took rugby very seriously, playing as back row forward at inter-collegiate level. By his second year he was in Emma's first fifteen and in the winter of his third year he even went on the college rugby tour to Jersey. He also played hockey for Emma's second eleven along with some tennis, but occasionally – and here a picture perhaps more familiar to us begins to emerge – golf. He actually started to play when aged eight with his father on the North Wilts course a stone's-throw from their home. A reference from Barry's supervisor Ken Roscoe also reports some more diverse ways of spending the vacs: he used to help a local farmer, even once assisting with thatching a roof, thus returning to Emma with extremely sore and cut hands. Roscoe also spoke very approvingly of Barry's interest in motor racing, mentioning his red TR2 which amazingly is still on the road today with its current owner in Cornwall and was recently featured in a motoring magazine. Barry's interests in all things mechanical saw a summer vac spent in Paris with Tony Collet, another Emma man, on a six-week

stint at an industrial equipment supplier, Repiquet. Records show Barry was also a member of the Cambridge Union, the Law Society, the college engineering society and CUCA, to name a few.

It was in the later part of his second year that I met Barry. I was not an undergraduate but on a week's visit to Cambridge, where in the then Garden House Hotel suddenly there before me was this gorgeous creature attired in a black flowing gown (that was the de rigour attire with several fines of money if not worn): I found it very dashing, even romantic. Needless to say, from here on life for us both took on a whole new way. Senate House: wow! We wined and dined; I was driven about all over the countryside in the TR2, no seat belts then, which was quite an experience; and was finally invited to May Week. This was seven days of non-stop garden parties, punting on the Cam, picnics plus balls fuelled with champagne galore until dawn; of course all this happened in June to replace the week lost to exams. This was when the famous Backs are so reliably spectacular; I, being very much pro Oxford having been educated in Abingdon just six miles from those dreaming spires, was totally blown away and definitely converted, and still am today, especially in the springtime amidst the daffodils.

Before completing the third part of his tripos Ken Roscoe had brokered a job for Barry in management with the Metal Box company. This would prove to be a very happy career in industrial management for many years: 26 in all. It was in this era that Barry introduced me to the world of motor racing, and I Barry to the world of ballet, my life-long passion even now; we also shared love of opera. One warm evening in the late summer, leaving Covent Garden after a ballet performance and driving out of London in the TR2 with the soft top down, we pulled over on to Putney Common, I thinking 'whoops we have a puncture or something' but no, Barry proposed. Of course it was 'yes'; I learned some time much later that had I said 'no' he would have gone round the world on the oil rigs. We were married in 1960 and the rest is history.

Joining Metal Box as a two-year trainee soon passed and we were on our merry way, moving roughly every two to three years to many factories and works in assorted counties. However, in 1974 Barry was invited to join the overseas Metal Box, which resulted in being offered a two-year contract in Singapore. By this time we were now a little family of four, with the arrivals of our two sons James and Charles, and not forgetting the family cat Toobee. The prospect of the forthcoming life change became exciting, almost an adventure, as the Far East was some 7000 miles away from the UK. Looking back it was an amazing experience not to have been missed. Located at the top of the island off the Bukit Timah was Woodlands, the factory where Barry had a multicultural workforce of 700 canning fresh pineapples and soft drinks. Our new home was nearby in five acres overlooking the Straits of Johore Bahru, where the Kampongs nestled in and out of the shoreline. Lee Kuan Yew was the president, which was interesting as modernisation of independent Singapore was to become an example of how a small state with few local resources could succeed. As a family it was a super posting for any expat in any line of business, though it took time to adjust to the climate; however air conditioning was very much to the fore.

During our time there, with leave after ten months, we were able to visit Thailand, India and Kenya. Coincidentally, while in Kenya Barry was offered a further four years overseas based in Nairobi. This was equally amazing, but leaving affluent Singapore for a third-world country was a complete contrast. Kenya gets really under one's skin and on leaving at the end of our tour we somehow left a little of us all there, up-country in the bush and with some of the culture, which has stayed with us until this day. This certainly turned out to be the posting that showed us how fortunate we were. In 1980 overseas life began to pale a little, and we felt that perhaps after six years away from home it may be time to think of returning. I always used to say: when I could smell a bonfire, rotting apples on the ground in the late summer, and pick up the

dishcloth and stand at the kitchen sink looking out on England's green and pleasant land it was time to leave. This we did, homeward bound to Blighty plus flying Bonny dog and Frederica cat ahead of us as six months' quarantine was required. They went three months ahead of us and by the time we arrived in the UK there was just another three months to go.

After 26 years clocked up with Metal Box Barry felt that perhaps a change of career direction was on the cards, so he took a sabbatical to ponder future routes. In no time at all he joined Hawker Sidley, not on an expat basis but certainly travelling to all far-flung corners of the globe. So we had another heave-ho move, from Berkshire to Gloucestershire, but as the boys were happily settled in boarding school it was quite an easy exercise. I kept the home fires burning while Barry set off to South America, China, the Middle East, plus Iran, the last at least four times a year. This was quite daunting at times as in those days there seemed to be hijackings and some pretty awful earthquakes too. We constantly lived on the edge, and how!

Once the boys had flown the nest we decided that maybe it was time to retire, move further into the countryside and follow country pursuits. At the age of 57 we called it a day, laying plans for the next chapter and our twentieth home. Thrown into this new life-style mix we bred waterfowl for show. Barry took a course to qualify as a judge, so we sped about the country livestock shows. We also improved our much-enjoyed golf, joined various village committees to put something back and also set up a home-from-home in the Vendée, which we frequented for many months of the year. This new pace of life also enabled us to catch up with family and friends at intervals. Also this was the longest we spent in one home, 12 years, which speaks for itself.

Suffolk always had an appeal: flat countryside with enormously open skies, a little out on a limb but the coast within good striking distance from most areas. So we finally upped sticks once more and headed for Newmarket, just an hour from London: perfect for ballet and opera, not forgetting Eurotunnel for France. The equine capital of the world was a real pull with this much-followed sport: racing. Barry had his first introduction while doing his National Service as he was based near to Lambourn, and he enjoyed picking up the threads again. We had an interest with Henry Cecil at Warren Hill not too far from our home, added to which an annual membership for all the flat seasons events made for some exciting days at the Rowley Mile and July courses. Of course with Emma just 15 minutes away, for the next 11 years the sheer enjoyment of Sunday lunches, reunion speakers' evenings and the Fitzy absorbed a great part of our lives.

Barry first became ill in 2016; it was a blessing living here as we had the very best medical facilities and treatments available globally. We are totally indebted to Addenbrooke's in that he was able to have care for his every need in the best way possible. It was also a tremendous comfort when James, our elder son who lives in Oz, came across and together they would spend time in Emma, the Fitzy and Cambridge generally. Charles in Wiltshire juggled endlessly all his commitments and also come across to Newmarket in those last months. Following the flat season was made even more accessible with subscribing to the TV Equine Chanel for watching racing world-wide.

My brother Rob was very chummy with Barry as they both had vintage and classic cars which they participated in assorted events, making for one-upmanship banter. Rob spoke eloquently at the celebration service and summed up his much-admired brother-in-law. He was a die-hard stickler for etiquette, procedures and doing the right thing, always insisting on a display of good manners. He was, as we all know, extremely well informed and very articulate, skilfully using the power of persuasive reason and, if needs be, not a little brow-beating to drive home his point of view. I can confirm it was no lightweight matter to take him on with almost any subject. 'Manners maketh man' is the motto of Winchester College, but clearly this also extends to an Old

Marlburian as he often demonstrated he was a gentleman. Barry is so missed: he was such a dear friend for decades.

Barry was an amazing person in so many ways that it is hard to single out just a few. After knowing him for so many decades, a wealth of memories will take decades to look back on, but every day just one memory comes to mind that suddenly helps to get through the many down days, and with his quizzical smile Barry will always be hovering in the background. He loved his family, especially his two boys and more recently his four adorable grandchildren of whom he was so very proud. They gave him such joy, they too loved their grandpa as did James, Charles and I. He is missed immeasurably but will never be forgotten. As one chapter closes so another opens; he would have wished us to soldier on in true British mode and so we will as best we can.

His son Charles writes:

Thinking back to my childhood and my memories of Pa, a few things came to mind: he always used to wear a cravat when he went into town at the weekend, and I remember a navy and pink rugby swipe and a cream cap that he used to garden in. He loved gardening and growing vegetables, and I remember the smell of a bonfire in his hair and on his clothes when he came in from an afternoon's labour, and also the smell of cigars or pipe smoke in the house when he was in his study working.

He was a man of some paradox: he was a serious-minded and well-educated man as we've heard, he preferred non-fiction to fiction, and would happily wade through Stephen Hawkings' *A Brief History of Time* and not only understand it, but also point out a couple of areas that the author could have addressed better. In contrast to that he loved slapstick comedy and used thoroughly to enjoy *The Benny Hill Show* and *Laurel & Hardy*, laughing raucously and often shedding tears of hilarity at their antics.

I also remember that Pa was a man who brought a presence and a force into the room with him, and when my dad was speaking, whether around the boardroom table or the dining room table, everyone listened to what he had to say. He had massive self-belief and absolute conviction that he was right, always, even to the extent where during a family game of Trivial Pursuit the answer printed on the card was dismissed as 'incorrect'.

One final memory from during Pa's illness was his telling me that he had no bucket list, had done everything he had wanted to in life, had lived and travelled all over the world and, if he had been told on his retirement that he would have lived into his 80s, he would have thought he was the luckiest man in the world.

His son James writes:

I would like to keep this quite brief because Pa was most definitely not someone who was prone to waffle, unless he was in his cups and regaling us with an anecdote that we may or may not have heard several times before. He was generally a man who liked to get straight to the point and so to honour his memory I would like to try and do exactly that. I know he is up there somewhere watching and listening and if I do start to go on a bit, I am sure he will be saying 'Oh, do get on with it, James!!'

Pa was genuinely a man of integrity and honour, and a person whom I think could be accurately described as a gentleman of the old school. He could certainly be forthright in his opinions and views – a trait that he may well have passed on to his sons! – but was always totally dedicated to Tessa, his wife of almost 58 years and his two boys who, speaking for myself, tested that commitment on many occasions in my somewhat wayward younger years, but he never wavered in his loyalty or love for us all. Everything he did had a purpose and was ultimately for the benefit of his family. I think that much of this came from the fact that he was very close to his own father, who he lost so young, and his dad never got to see the life that Pa made for himself and his own family.

He gave Charlie and me the benefit of a wonderful education that, while we may not always have appreciated it at the time, provided us with opportunities in life that many – if not most – people do not receive. Pa, of course, attended Marlborough College, and was sometimes able to pass on the benefit of his experiences there. At the age of 14, I was caught smoking by my housemaster, Mr Dain. Following the compulsory six of the best and writing the letter of shame advising my parents, the next time I saw Pa he asked me where I had been caught. When I told him it was in the shower block, he exploded and said 'Why on earth were you doing it in there? Why didn't you go up into the chapel steeple? That's where I used to go and I NEVER got caught!'

One of his greatest strengths as a father was that he let us find our own way in life and didn't try and map out a course for us to follow, but he was always there to provide advice or guidance, which he would generally only offer if we asked for it. In this day and age where parents often try and micromanage their children's lives to the nth degree, I am truly grateful for that.

It was wonderful to come over and spend time with him in October last year: despite physically ailing, he was mentally sharp and his ability to mix cocktails that knock you for six was undiminished. We had one particularly lovely day in Cambridge when he gave me a tour of his beloved Emmanuel College or Emma as it is known, despite being a little put out in the nicest possible way that Ma's name was in larger letters than his on the list of donors in the College library.

After the tour, we enjoyed a lovely Italian lunch just up the road from Emma, which was typically preceded by Pa, despite being very tired, walking around for 30 minutes while he perused the menus of every restaurant in a 400m radius of the college before he made his choice.

ROBERT COLBY (PETER) MILTON (1956) died on 27 November 2017. His family have sent the following obituary:

On Monday 27 November, 2017, Robert C Milton, Jr, known as Peter, passed away in New York City at the age of 83. Peter was born in Worcester MA in 1934 to Robert and Alice Milton. He graduated from Middlesex School in 1952 and Harvard College in 1956. Upon his graduation Harvard awarded him the prestigious Lionel de Jersey Harvard scholarship for study at Emmanuel College, Cambridge, England, in 1956–57.

Peter had a successful career in college athletics. During his senior year at Harvard he was captain of the squash team, which was the undefeated Ivy League champion with victories over its major rivals, Yale, Princeton, and Army & Navy. Also in his senior year, he was the coxswain of the Harvard varsity crew. During the year of his studies in England, Peter coxed the Cambridge University crew that won its race against Oxford University on the River Thames.

Following his return to the United States, Peter graduated from the US army's infantry officer candidate school at Fort Benning GA in 1959. Peter moved to New York City in 1960 and worked for JP Morgan for 34 years until his retirement as a senior officer in wealth management. While working at JP Morgan, Peter met and married Nancy Lewis Stewart in 1964.

In recent years Peter helped to strengthen the relationship between the two universities he attended by making significant contributions to endow a John Harvard Distinguished Professorship at Cambridge University.

Peter was an honourable man and was loved by his family and friends. Small and wiry in stature, he was a determined (his friends would say 'ferocious') competitor, whether he was playing third base, or in a squash match, or on the golf course, or even on a croquet court. He stayed true to his school-time nickname of 'Booker', reading at least a book a week plus numerous periodicals throughout his life, usually on history, politics, or financial and governmental affairs.

Peter is survived by his wife, Nancy, his daughter, Holly, son, Robert, grandchildren Jared and Etta, and brother, David.

WENDELL ROBERT CARR (1962) died on 21 November 2016. The editors write:

Wendell Robert Carr, Jr will be remembered as a lawyer, historian and public servant. He died aged 78 from complications of Parkinson's disease.

He was born in Texas. His mother was a teacher and his father a railway worker. He graduated from Texas Christian University in 1960. He came to Emmanuel on a Fulbright scholarship and while he was here he met his future wife, Kathleen Frost. They married in 1965. He returned to America for his doctoral studies and completed his PhD at Harvard in 1967. His specialist area was British and American intellectual history, looking particularly at the the political, religious and social thought of John Stuart Mill.

He remained at Harvard teaching history until 1972, when he moved to the University of Wisconsin and remained there until 1975. He then decided to change from history to law and returned to Harvard, to the law school, where he completed his JD in 1978. He went on to practice law in Boston for 30 years, first at the firm of Gaston Snow & Ely Bartlett and later at Gadsby Hannah, retiring in 2008.

He was noted for his fervent belief in the value of education and for his advocacy of affordable housing. A strong believer in the value of public institutions, education and affordable housing, Robert worked on many projects in these areas for clients such as the Boston Housing Development Corporation and the University of Massachusetts Building Authority. Programmes he helped develop are seen as models for communities to deliver affordable housing.

Robert remained an historian and expressed this by working hard in the area of historical preservation. He served on the council of Historic New England and also chaired the editorial advisory committee that produced *Not All is Change: A History of Hingham,* a town in Plymouth County near Boston first settled in 1633 and named after Hingham in Norfolk. He and his wife Kathleen were named as Citizen of the Year in their home town of Marshfield in 1999 in recognition of their leadership of a campaign to save Phillips Farm: 40 acres of woodland and fields threatened with development. For many years, he and his family lived in the historic Byrd-Lapham House on Union Street in Marshfield, adding a permanent easement to the property to protect its historic character.

Despite living much of his life in New England, Robert brought a great deal from his childhood in the south. He maintained a love of music, serving as organist for three years at the Marshfield Community Church, and he inherited a life-long love of railways from his father. He was a dedicated cultivator of vegetables and, to the amusement of his friends, never gave up trying to make such southern specialties as collard greens and okra grow in stony, frosty Massachusetts. He was a faithful member of a group of transplanted southerners who annually celebrated SNYDD – Southern New Year's Day Dinner – where his okra was often on the menu.

To family and friends, Robert was known for his wit, erudition, warmth, sociability and sterling character. Notwithstanding his intellectual and professional achievements, he was without pretence or arrogance, always proud of his roots in east Texas.

A full obituary was published in the *Boston Globe*.

RONALD GEORGE CAVELL (1962) died on 25 November 2017. We have received the following obituary from his daughter, Cathy Bailey:

Born in Sault Ste Marie, Ontario and raised in Lachine, Quebec, Ronald Cavell graduated from McGill University in 1958 with a BSc (Hons) degree in chemistry, and received masters (1960) and PhD (1962) degrees from University of British Columbia. From 1962 to 1964, he was an NRC NATO Post-doctoral Fellow at Cambridge University (Emmanuel College), where he received a PhD in 1964. After joining the

department of chemistry at the University of Alberta in 1964, he was promoted to full professor in 1974, and made a lifetime Emeritus Professor of Chemistry in 2004. He was awarded a fellowship by the Chemical Institute of Canada in 1975 and, in 1979, received the CIC's inaugural Alcan Lecture Award for distinguished contributions in inorganic or electrochemistry in Canada. The University of Alberta awarded him the McCalla Research Professorship for 1993–94.

Dr Cavell served on the NSERC chemistry peer review panel and played an active role in the inorganic division of the Canadian Society for Chemistry, holding multiple offices including that of chairman. He was a founding member of the Canadian Institute for Synchrotron Radiation (CISR), which was formed to establish the Canadian Light Source (CLS) at the University of Saskatchewan and served as CISR chairman, secretary and president. He was also a founding member of the Alberta Synchrotron Institute and served on the management committees of the Canadian Synchrotron Radiation Facility (Madison WI), the Pacific North-West Consortium at the Advanced Photon Source (Argonne IL), the Alberta Center for Surface Engineering and Science, and the Canadian Center for Isotopic Microanalysis, all of which he was instrumental in establishing. As a founding member of the Canadian Light Source's board of directors, he helped guide the facility from concept and design through to construction. In recognition of these efforts, he received the Saskatchewan government's prestigious Saskatchewan Distinguished Service Award in March 2009.

Dr Cavell's productive scientific career saw the publication of over 240 articles, nine patents for systems of metal complexes applied to homogeneous catalysis, the graduation from his lab of numerous masters and PhD students and postdoctoral fellows, and well enjoyed collaboration with colleagues around the globe.

MARK BRINLEY BRYANT (1971) died on 9 August 2017. His friend, Brian Baker (1971), has written the following obituary:

'I speak to you not from the Beyond: I speak to you, rather, from the Before.' This is the opening line from a video Mark made shortly before he died, and which was played at gatherings of Mark's various friends and family members in both England and Australia as part of what he called a 'cheerful farewell'. It demonstrates how organised he was, his great sense of humour and his thoughtfulness providing us all with a loving memento of him. I have filled in many of the biographical details that follow with the help of the cheerful farewell.

I arrived at Emmanuel College on 2 October 1971 and met Mark within the first ten minutes of being there. I spent the afternoon in his room drinking coffee and being introduced to many of his favourite songs and singers, which would form part of the soundtrack of my time in Cambridge and subsequently, including Elton John, Joni Mitchell and Leonard Cohen. Music was a big part of Mark's life and his big lament was that only the male members of his family, his father and uncle, shared this enthusiasm whereas the wonders of music were lost on his mother and sister, and later his wife, Anne!

Late in the afternoon there was a knock on the door and someone asked if by chance we had a corkscrew. Of course Mark, the inveterate organiser prepared for all eventualities, was able to locate the item immediately, with the result that we were invited to partake of wine and to be introduced to several other college members, including the Harvard scholar, Steve Hengen, with whom we both become firm friends. During the rest of the day we drank yet more wine in the Harvard scholar's room, had a private showing of *The Russians Are Coming! The Russians Are Coming!* courtesy of the president of the film club and staggered back to North Court in the early hours. I'd had quite a significant introduction to university life and I had made a friendship which would endure for the rest of my life.

Mark was born in Coventry on 3 May 1952. His mother, Pat, was a Suffolk farmer's daughter and his father, Brinley, was a miner's son from Wales. The family moved to Gloucester when Mark was four and his early schooling was at Elmbridge Junior School; by the time he started school at Sir Thomas Rich's school in Gloucester he was, in his own words 'at age 11 already set up with three great passions: football, books and music'. The music had always been there, the love of books when he discovered the adult library (everyone knows of his obsession with *Brideshead Revisited*), and the football when his father took him to see Ipswich play against Arsenal in April 1962. Football always played a major role in Mark's life even though, to his infinite regret, the only exam he ever failed in his life was the goalkeepers' proficiency exam and he never got to play in goal for England.

School had a significant influence on Mark as he was able to pursue all of his interests and at the same time forge many important friendships and allegiances, which would endure for the rest of his life. One of his most endearing qualities was to maintain these relationships, introduce friends to other circles and then act as linchpin to keep them all together. Thus, when I met Mark in 1971 it was also the start of a whirlwind tour of Britain's universities and colleges, in Mark's trusty Morris Minor, to visit all his Gloucester friends, who in turn became the friends of our new ones in Cambridge.

The same Morris Minor took Mark and me off for a three months' working holiday in Denmark in the summer of 1973. The advert in *The Times* asked for two students 'fluent in German and French with a keen interest in gardening', none of which qualities applied to us, but we went for the interview in Knightsbridge and got the job nevertheless, which largely involved steering mowers over wide expanses of lawn and chauffeuring for the Baron Philippe de Rothschild, a confirmed Anglophile who was accustomed to spending his summer vacations on the estate. It was an eye-opening experience in many ways!

Mark studied law at Emmanuel but very soon decided that a legal career was not for him, even though he had an analytical brain and a phenomenal memory for case law. As a result, he went to a vocational guidance organisation which recommended accountancy, an option never hitherto contemplated, but Mark recognised his skill with numbers and, along with the added advantage, as he himself said, that this was an independent adviser with no agenda or connection to parental or college influence, this was the nascence of his career.

Before embarking on it there was graduation, followed by a gap year during which Mark travelled extensively before arriving in Australia. On Australia Day 1975 occurred the event that changed his life. A classical music concert was advertised at the town hall and Mark decided to attend. When he got there, he was surprised to see only a handful of people waiting and this was subsequently explained by a caretaker, who pointed out the concert had taken place a day earlier. As Mark said, 'I had an excuse (for getting it wrong), being a Pom'. However, Mark had struck up an acquaintance with a young lady called Anne, a non-music-lover inexplicably waiting for the same concert, and this combination of circumstances led to them ultimately spending the rest of their lives together.

This didn't happen immediately, however. Mark was committed to returning to England to begin his training as an accountant with Arthur Andersen. Anne joined him on two occasions while he was doing so, but their proper life together in Australia, where he was to remain, began in 1978 when he moved to Sydney, again working for Arthur Andersen. During his time there he often found himself giving evidence in court and making the discovery that the practice of law was more interesting than the study of it, and that his reading of the subject at Emmanuel had stood him in good stead.

He became a partner with Arthur Andersen in 1987. From the early 1990s Mark was diverted back to audits for a while, when Andersen became the auditors of News Corp and he was thought to be the ideal lead partner as he was 'good with difficult

people'. When Arthur Andersen collapsed, Mark moved to Ernst & Young, then later to a small Australian firm, KordaMentha, where he remained for the rest of his life.

In 1997 Mark joined the board of the Spastic Centre of New South Wales (later to be renamed Cerebral Palsy Alliance). He knew nothing about the disability at that time, but as a result of intensive research and dedication he became a valued member of the team and counted it as a particularly rewarding area of his life. In 2009, Mark was awarded an Order of Australia Medal (OAM) for services to cerebral palsy and local football.

Football, as previously stated, along with other sports and particularly tennis, had always been another important area of Mark's life. He joined a local Sydney team, Lane Cove West, in 1979 and became president two years later. Under Mark's leadership it expanded from one team to two teams and eventually to two all-age teams, two in over 35s and two in over 45s. Mark was also instrumental in organising a team collectively called Barbagians, comprising Lane Cove West members and UK members, to participate in two sets of European Masters games, in Turin in 2013 and Nice in 2015, arriving in the final of the over 50s at the latter venue.

For the two Masters competitions Mark rented luxury properties in the two locations for the duration of the games and generously invited close friends to share them with him. Indeed, it had been a pattern for many years that Mark would pay visits to the UK from Australia but rather than, as he said, 'rush about like a mad thing' trying to see all his many friends, he preferred to take possession of superb houses in beautiful countryside (including the Peak District and Shropshire) and arrange for friends and family to stay with him. It was always a great pleasure to spend prolonged periods of time with Mark in these places and thus also to maintain contact with so many wonderful friends, who had all met each other through him. Mark and Anne were equally excellent hosts for anyone who visited them in their house in Sydney.

In the Easter holidays 1972 I had received a letter from Mark headed: 'It's Good Friday … it's good any day of the week', a ridiculous joke that ran and ran between us ever since. At Easter 2017, in an endeavour to be the first for that year to repeat the joke, I sent an email to Mark with a variation on the theme. It was then I received the chilling reply that things were 'not so good' and that Mark had cancer of the lungs and bones. Despite some initial cause for optimism, Mark sadly died in August 2017.

My life was immeasurably enriched by knowing Mark and I know that many other people feel the same way. He is survived by his wife, Anne and their children, Julia and David.

KEITH DAVIES (1972) died on 14 October 2016. We have received the following obituary from his wife, Bobbie:

'I have lived outside of New York after my departure from Argentina.' This was usually the way Keith would start his story when asked by friends. Keith and his wife, Bobbie (née Saywood), settled in a small town outside New York City in 1982 after leaving his location in Argentina, a departure that was the result of political strains between the British and Argentinean governments. As Keith explained: 'I was in Argentina during the period of one-way helicopter rides over the Atlantic Ocean and the Mujeres parading around the Plaza de Mayo. Britain and Argentina decided to go to war about nine months later.' At that point, Keith knew that the future of his career and family laid in opportunities found in the US. Though a transatlantic move could be seen as stressful, Keith had an amazing sense of humour and explained it in this way: 'J P Morgan, my then employer, suggested that I might want to come to New York City rather than risk being imprisoned by the Argentineans. It was a tough choice, but I came and remained in the US.'

Keith originally hailed from a small village outside Cheltenham. He worked extremely hard through his formative years and had the opportunity to continue his

education at Emmanuel College. Keith always attributed his considerable success and tireless drive to his education in economics at Emmanuel (BA 1975, MA 1979). In addition to his invaluable degrees, Emmanuel taught Keith to have the determination and passion to take advantage of life's opportunities. In particular, Emmanuel encouraged him to foster a love for the arts and it provided the setting for him to meet his future bride, Bobbie.

Before Emmanuel, Keith was a Duke of Edinburgh gold award winner (1969) and a Royal Air Force cadet. After Emmanuel, his studies led him on a journey during which he was admitted to the Institute of Chartered Accountants in 1979 and was granted a fellowship in 1989. Keith completed an MBA (1987), MPhil (1991) and PhD (1997) at NYU Stern School of Business, where he was also admitted as a member of Beta Gamma Sigma.

Aside from his academic success, Keith enjoyed a very rich and fulfilling career in financial services. He was extremely humble about his successes and always related his professional endeavours with a great sense of humour. Ever humble in his own abilities, Keith would say: 'There are few slightly deranged people who think that in my better moments I actually know something of financial services' IT systems'. Here is a vignette of Keith's career in his own words:

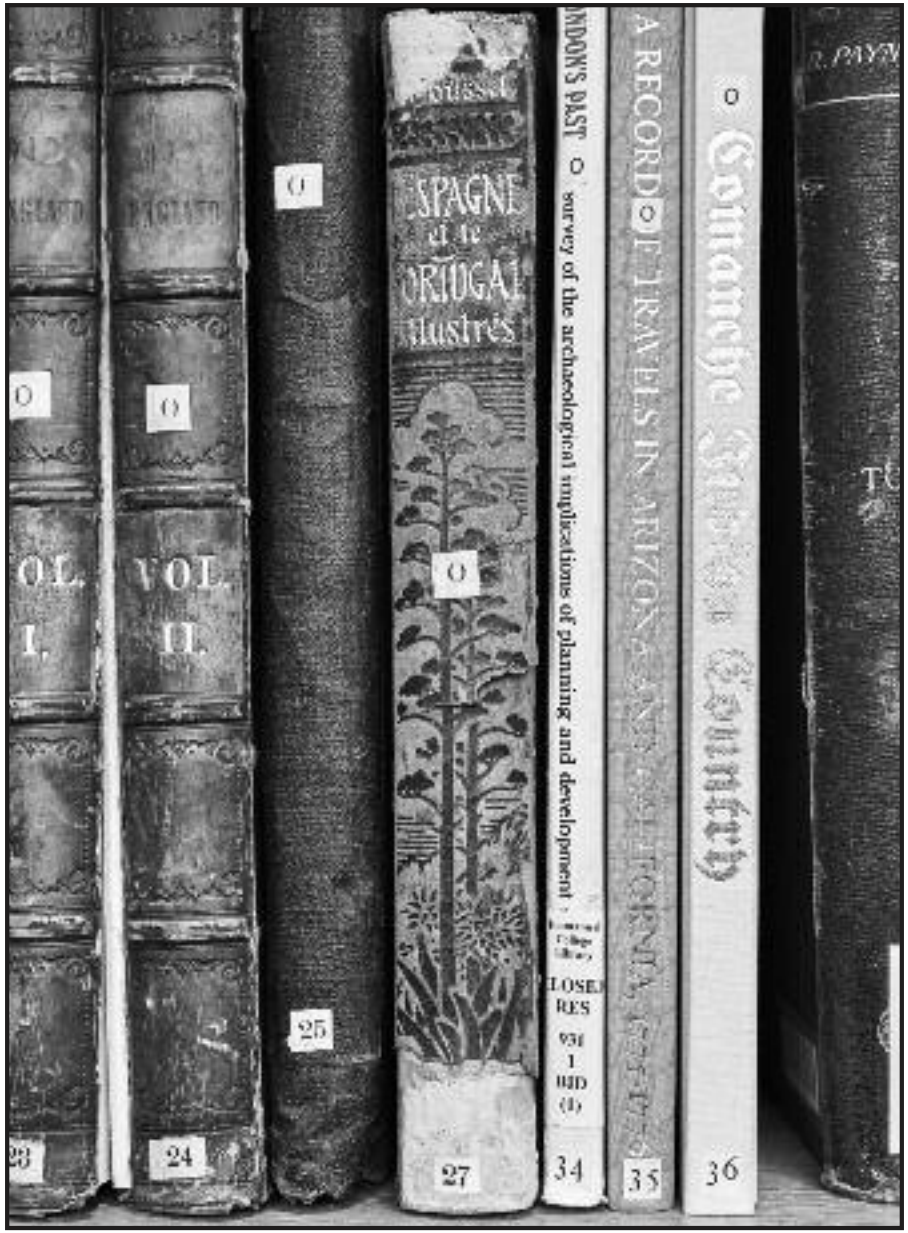
> I have my own IT consulting company. I enjoy consulting as you get the opportunity to do something different every three to six months, seeing a variety of companies. I have two principal business lines: first strategic IT consulting and financial services, and secondly business development on large outsourcing deals. I plead guilty to being implicated in the transfer of jobs to Asia.

In addition to his business endeavours, Keith volunteered for a non-profit funded by the US State Department. He undertook projects in Azerbaijan, Bosnia, Albania, Egypt, Vietnam, Lebanon and Morocco. Outside his academic and professional success, Keith also loved travel and literature. His love of travel, theatre, Welsh rugby, literature, higher education and financial services lives on in his three daughters, who also share his sense of humour.

Keith is survived by his wife Bobbie, daughters Tamsin Davies, Glencora Ermer and Demelza Davies and cousin, Roy Jones. He is predeceased by his parents Lyn and Ev Davies.

Before he died, Keith often spoke of starting a scholarship to aid another individual to receive the incredible benefits of an education from Emmanuel College. He was passionate about providing more opportunities to applicants like him who would benefit from a scholarship fund. Therefore, to fulfil his wishes, his family has set up the Keith Davies Memorial Fund at Emmanuel College to continue his legacy. Details of this can be obtained from the Emmanuel College Development Office.

Keith was an amazing man, savvy businessman, arts enthusiast, loving husband and extremely devoted father. To end with a quote from Keith's favourite Shakespeare play, *Hamlet*: 'To die, to sleep – to sleep perchance to dream – ay there's the rub, for in this sleep of death what dreams may come…' (*Hamlet*: Act III Scene 1).



Lists

THE FELLOWSHIP

THE HONORARY FELLOWS

1979

Professor Derek Curtis Bok, BA (Stanford), LLD (Harvard). Formerly President, Harvard University

1985

Michael Frayn, BA, Hon LittD

1990

Sir Leslie Fielding, KCMG, MA, Hon LLD, FRSA, FRGS. Formerly Vice-Chancellor, University of Sussex

1991

Neil Leon Rudenstine, BA (Princeton), MA (Oxon), PhD (Harvard). Formerly President, Harvard University

1999

Peter Michael Beckwith, OBE, MA, Hon LLD

2000

Professor Sir John Michael Taylor, OBE, MA, PhD, FRS, FREng. Chairman, the Web Science Trust; formerly Director-General of Research Councils and Director of Hewlett Packard Laboratories Europe

2001

The Honourable William Lloyd Hoyt, OC, QC, MA. Formerly Chief Justice of New Brunswick

2002

Professor Lawrence H Summers, BSc (MIT), PhD (Harvard). Formerly President, Harvard University

2003

John Edward Meggitt, MA, PhD

Professor Sir Roderick Castle Floud, MA, DPhil (Oxon), Hon DLitt (City), FBA, AcSS, FCGI, Member of the Academia Europaea. Formerly Provost of Gresham College

2004

Professor Geoffrey Joel Crossick, MA, PhD, FRHistS. Formerly Vice-Chancellor, University of London

Professor John Boscawen Burland, CBE, PhD, MSc & DSc (Witwatersrand), Hon DSc (Nott, Warwick & Hertford), Hon DEng (Heriot-Watt & Glasgow), FRS, FREng, NAE, FICE, FIStructE, FCGI. Emeritus Professor of Soil Mechanics and Senior Research Investigator, Imperial College London

2007

The Most Revd Dr Peter Frederick Carnley, PhD, BA (Melb), Hon DLitt (Newcastle, Queensland & Western Australia). Formerly Primate of the Anglican Church of Australia, Archbishop of Perth and Metropolitan of Western Australia

Griffith Rhys Jones, MA, FWCMD, FRSA, Hon DLitt (APU, Cardiff, Essex, Glamorgan & UEA). Honorary Fellow, Bangor University; Vice-President, Victorian Society; President, Civic Voice

Professor Francis Patrick Kelly, CBE, PhD, BSc (Durham), Hon DSc (Imperial College London) FRS. Professor of the Mathematics of Systems; formerly Master, Christ's College

Professor Jane Carol Ginsberg, MA (Chicago), JD (Harvard), Doctor of Laws (Paris II). Morton Janklow Professor of Literary and Artistic Property Law, Columbia Law School; Director, Kernochan Center for Law, Media and the Arts

2008

Professor David John Drewry, PhD, BSc (Lond), Hon DSc (Anglia Ruskin, Hull, Lincoln & Robert Gordon), FRGS, CCMI. Non-Executive Director (Natural Sciences), UK Commission for UNESCO

Sebastian Charles Faulks, CBE, MA, Hon DLitt (UEL), FRSL

Professor Drew Gilpin Faust, BA (Bryn Mawr), MA (UPenn), PhD (UPenn). Formerly President, Harvard University; Lincoln Professor of History, Harvard University

David Travers Lowen, MA. Chair of the Board, Leeds Beckett University; Chair of the Council, UCAS; Honorary Secretary of the Royal Television Society; Chairman, the Emmanuel Society 1996–2013

Professor Sir Eldryd Hugh Owen Parry, KCMG, OBE, MA, MD, FRCP, FWACP, Hon FRCS, Hon DSc (Kumasi). Founder and Trustee, Tropical Health Education Trust

2011

Thomas Gerald Reames Davies, CBE, MA, BSc (Loughborough), Hon DLitt (Loughborough), Hon DUniv (Glamorgan), Hon LLD (Swansea), Chairman Pro12 Rugby

Professor John Hopkins Lowden, MA, PhD (Lond). Professor of History of Art, Courtauld Institute

Professor Sir Peter Charles Rubin, MA, MB, BChir (Oxon), DM (Oxon). Emeritus Professor of Therapeutics, University of Nottingham; Chairman, General Medical Council 2009–14

2012

Andrew William Mildmay Fane, OBE, MA, FCA. President, the Emmanuel Society

2014

Professor Curtis Tracy McMullen, BA (Williams), PhD (Harvard), Hon DSc (Williams). Cabot Professor of Mathematics, Harvard University

Moira Wallace, OBE, MA, AM (Harvard). Formerly Provost, Oriel College Oxford

2016

Professor Christopher Roy Husbands, MA, PhD, PGCE (Lond). Vice-Chancellor, Sheffield Hallam University

Professor Peter Slee, PhD, BA (Reading). Vice-Chancellor, Leeds Beckett University

2017

Professor Yuk Ming Dennis Lo, MA, MB, BChir (Oxon), DPhil (Oxon). Li Ka Shing Professor of Medicine and Professor of Chemical Pathology, Chinese University of Hong Kong; Director of the Li Ka Shing Institute of Health Sciences

Indrajit,Coomaraswamy, MA, DPhil (Sussex). Governor, Central Bank of Sri Lanka

2018

Edith Heard, BA, PhD (Lond), FRS. Director of the Genetics and Developmental Biology Unit, Institut Curie; Professor of Epigenetics and Cellular Memory, Collège de France; Director-General elect, European Molecular Biology Laboratory

Professor Andrew John Petter, QC, LLM, LLB (Victoria). President and Vice-Chancellor of Simon Fraser University

THE MASTER AND FELLOWS, 2017–18

We publish below for reference a list of the Master and Fellows as at 1 October 2018, indicating their college and university offices and the class of Fellowship currently held by each. The names are arranged in order of seniority. The date against a name is that of election to the Mastership or of first election to a Fellowship (of whatever class). A second date indicates that the person concerned ceased to be a Fellow for a time and has been re-elected.

2012

Dame Fiona Reynolds, DBE, MA, MPhil. Master

1978

Barry Alexander Windeatt, MA, LittD. Life Fellow; Vice-Master; Keeper of Special Collections in the College Library; Emeritus Professor of English

1973

John Eirwyn Ffowcs Williams, MA, ScD, BSc (Soton), PhD (Soton), Hon DSc (Soton), FREng. Life Fellow; formerly Master 1996–2002; Emeritus Rank Professor of Engineering

2002

Lord Wilson of Dinton, GCB, MA, LLM. Life Fellow; formerly Master 2002–12

1960

John Lewis Reddaway, MA, CEng. Life Fellow; formerly Secretary, University of Cambridge Local Examinations Syndicate

Brian Arthur Thrush, MA, ScD, FRS, Member of the Academia Europaea. Life Fellow; Emeritus Professor of Physical Chemistry

1964

Anthony John Stone, MA, PhD. Life Fellow; Emeritus Professor of Theoretical Chemistry

1966

The Revd Don Cupitt, MA, Hon DLitt (Brist). Life Fellow

1968

John Francis Adams Sleath, MA, PhD. Life Fellow

1970

Alan Reginald Harold Baker, MA, PhD (Lond), DLit (Lond), FBA, Chevalier dans l'Ordre des Palmes Académiques, Honorary Member of the Société Géographique de Paris. Life Fellow

1967

John Robert Harvey, MA, LittD. Life Fellow

1968

Stephen Roger Watson, MA, MMath, PhD. Life Fellow; formerly founding Director of Judge Business School and KPMG Professor of Management Studies

1973

Bryan Ronald Webber, MA (Oxon & Cantab), PhD (Calif), Hon PhD (Lund), FRS. Life Fellow; Emeritus Professor of Theoretical Physics

Peter O'Donald, MA, ScD. Life Fellow

1974

David Anthony Livesey, MA, PhD, BSc(Eng) (Lond), ACGI, DUniv (Derby). Life Fellow; formerly Secretary General of the Faculties

Richard James Barnes, MA, PhD, MB, BChir. Life Fellow, Director of Studies in Medicine

James Edward Pringle, MA, MMath, PhD. Life Fellow; Emeritus Professor of Theoretical Astronomy

1979

Ulick Peter Burke, MA (Oxon & Cantab), Hon PhD (Brussels, Bucharest, Copenhagen, Lund and Zurich), FBA, FRHistS, Member of the Academia Europaea. Life Fellow; Emeritus Professor of Cultural History

1981

Bruce Richard Martin, MA, PhD (Brist). Life Fellow

Susan Kathleen Rankin, MA, PhD, MMus (Lond), FBA. Professorial Fellow; College Lecturer in Music and Director of Studies; Professor of Medieval Music

1982

Finian James Leeper, MA, PhD. Official Fellow; College Lecturer in Chemistry and Director of Studies; Reader in Biological Chemistry

1984

Steven Rowland Boldy, MA, PhD. Life Fellow; Emeritus Professor of Latin American Literature

1975, 1986

John Henry Coates, PhD, BSc (ANU), D Hon Causa (Heidelberg, École Normale Supérieure, Paris,), FRS. Life Fellow; Emeritus Sadleirian Professor of Pure Mathematics

1984

Keith Sheldon Richards, MA, PhD. Life Fellow; Emeritus Professor of Geography

1985

Stephen John Young, MA, PhD. Life Fellow; Emeritus Professor of Information Engineering

1988

Christopher John Burgoyne, MA, PhD (Lond), MICE, FIStructE. Life Fellow; Emeritus Professor of Structural Engineering

1986, 1992

Nigel Jonathan Spivey, MA, PhD. Official Fellow; Tutor; College Lecturer in Classics; University Senior Lecturer in Classics

1989

John William Grant, MA, MD (Aberdeen), ChB (Aberdeen), FRCPath. Official Fellow; College Lecturer in Medicine; Consultant Histopathologist at Addenbrooke's Hospital

1990

Michael John Gross, MA, PhD. Official Fellow; Bursar; College Lecturer in Economics

Nigel Peake, MA, MMath, PhD. Professorial Fellow; College Lecturer in Applied Mathematics; Professor of Applied Mathematics

1993

Michael Dennis Sayers, MA, DPhil (Sussex). Life Fellow; formerly Director of the University Computing Service

Robert Michael Henderson, MA, BSc (Lond), PhD (Lond). Official Fellow; Senior Tutor; Tutor for Admissions (Science); College Lecturer in Medicine; Reader in Macromolecular Pharmacology

1984, 2007

Stephen Phelps Oakley, MA, PhD, FBA, Member of the Academia Europaea. Professorial Fellow; Kennedy Professor of Latin

1988, 2000

Alison Sarah Bendall, PhD, MA (Oxon & Sheff), FSA, MCLIP. Official Fellow; Development Director; Fellow Librarian; Fellow Archivist; Curator of the Douglas Finlay Museum of College Life

1994

The Revd Jeremy Lloyd Caddick, MA (Cantab, Oxon & Lond). Official Fellow; Dean; Graduate Tutor; Praelector

1995, 1999

Mark John Francis Gales, MA, PhD. Official Fellow; Fellows' Steward; College Lecturer in Engineering; Professor of Information Engineering

1995

Catherine Jane Crozier Pickstock, MA, PhD. Official Fellow; College Lecturer in Theology and Director of Studies; Norris-Hulse Professor of Divinity

1997

Elisabeth Maria Cornelia van Houts, MA, LittD, PhD (Groningen), FRHistS. Official Fellow; College Lecturer in History and Director Studies; Director of Studies in History & Politics; Honorary Professor of Medieval European History

Jonathan Simon Aldred, MA, PhD. Official Fellow; College Lecturer in Economics and Director of Studies

1998

Florin Udrea, PhD, MSc (Warwick), FREng. Professorial Fellow; College Lecturer in Engineering; Professor of Semiconductor Engineering

2000

Julian Michael Hibberd, MA, BSc (Wales), PhD (Wales). Official Fellow; College Lecturer in Plant Sciences; Professor of Photosynthesis

Philip Mark Rust Howell, MA, PhD. Official Fellow; Tutor; Tutor for Admissions (Arts); College Lecturer in Geography and Director of Studies; Reader in Historical Geography

Glynn Winskel, MA, ScD, MSc (Oxon), PhD (Edin), Member of the Academia Europaea. Professorial Fellow; Professor of Computer Science

Mark Andrew Thomson, BA (Oxon), DPhil (Oxon). Professorial Fellow; College Lecturer in Physics; Professor of Experimental Particle Physics

2002

Nicholas James White, MA, PhD. Official Fellow; College Lecturer in French; Director of Studies in Modern and Medieval Languages; Professor of Nineteenth-Century French Literature and Culture

Corinna Russell, MA, PhD. Official Fellow; Tutor; Tutor for Admissions (Arts); College Lecturer in English and Director of Studies

Robert Macfarlane, MA, PhD, MPhil (Oxon), Hon DLitt (Aberdeen & Glos). Official Fellow; College Lecturer in English; Reader in Literature and the Geohumanities

Catherine Rae, BA (Oxon), DPhil (Oxon). Official Fellow; Assistant Graduate Tutor; College Lecturer in Engineering; Professor of Superalloys

2004

Carolin Susan Crawford, MA, PhD. Supernumerary Fellow; Tutor; Tutor for Admissions (Science); College Lecturer in Mathematics for the Physical Sciences; former Gresham Professor of Astronomy

Lionel Alexander Fiennes Bently, BA. Professorial Fellow; Herchel Smith Professor of Intellectual Property; Director of the Centre of Intellectual Property and Information Law

Lucia Ruprecht, PhD, BA (Aix-en-Provence), MA (Tübingen & Aix-en-Provence). Official Fellow; College Lecturer in German; Director of Studies in History & Modern Languages; Director of Studies in Modern Languages

2005

Richard William Broadhurst, MA (Oxon), DPhil (Oxon). Official Fellow; College Lecturer in Biochemistry; Director of Studies in Biological Natural Sciences; Assistant Director of Research in NMR Spectroscopy at the Department of Biochemistry

John Maclennan, MA, PhD. Official Fellow; Assistant Graduate Tutor; College Lecturer in Earth Sciences; Director of Studies Natural Sciences (Physical); Reader in Earth Sciences

2000, 2009

Francis Michael Jiggins, MA, PhD. Official Fellow; College Lecturer in Genetics; Professor of Evolutionary Genetics

2006

Okeoghene Odudu, MA (Cantab & Keele), DPhil (Oxon). Official Fellow; University Senior Lecturer in Law and Director of Studies; Deputy Director, Centre for European Legal Studies

2007

Rosy Ellen Thornton, MA, PhD. Official Fellow; Tutor; College Lecturer in Law; University Lecturer in Law

Patrick John Barrie, MA, PhD. Official Fellow; College Lecturer in Chemical Engineering and Director of Studies; University Senior Lecturer in Chemical Engineering

Devon Elizabeth Anne Curtis, BA (McGill), MA (McGill), PhD (Lond). Official Fellow; Adviser to Women Students; College Lecturer in Politics; Director of Studies in Human, Social & Political Sciences; University Senior Lecturer in Politics

Christopher Lyall Whitton, MA, PhD, FRCO. Official Fellow; Director of Music; Deputy Praelector; College Lecturer in Classics and Director of Studies; University Senior Lecturer in Classics

Alexandre Joseph Kabla, PhD, MA (ENS Lyon). Official Fellow; Tutor; College Lecturer in Engineering and Director of Studies; University Lecturer in Engineering for the Life Sciences.

2008

Jonathan Sam Simons, PhD, BSc (Aberdeen). Official Fellow; College Lecturer in Experimental Psychology and Director of Studies in Psychological and Behavioural Sciences; Reader in Cognitive Neuroscience

2006, 2013

Julie Sylvie Marie-Pierre Barrau, BA (Paris Sorbonne), MA (Paris Sorbonne). Official Fellow; College Lecturer in History; University Lecturer in History

2010

Anurag Agarwal, MA, BTech (Bombay) PhD (Penn State). Official Fellow; College Lecturer in Engineering and Director of Studies; Reader in Acoustics and Biomedical Technology

2011

Penelope Jayne Watson, MA, VetMD, PhD. Official Fellow; Tutor; College Lecturer in Veterinary Medicine and Director of Studies; University Senior Lecturer in Small Animal Nutrition

David Maxwell, BA (Manch), DPhil (Oxon). Professorial Fellow; Dixie Professor of Ecclesiastical History

Geoffrey Smith, MA (Cantab & Oxon), BSc (Leeds), PhD (NIMR), FRS. Professorial Fellow; Professor of Pathology; Wellcome Principal Research Fellow

Perla Sousi, MA, MMath, PhD, BSc (Patras). Official Fellow; College Lecturer in Statistics; Research Associate in the Department of Pure Mathematics and Mathematical Statistics

2012

Alexander Sam Jeffrey, MA (Cantab, Durham & Edin), PhD (Durham). Official Fellow; Tutor; Financial Tutor; College Lecturer in Geography; Reader in Human Geography

Laura Moretti, MA (Venice), PhD (Venice). Official Fellow; College Lecturer in Asian and Middle Eastern Studies and Director of Studies; University Senior Lecturer in East Asian Studies

Ayşe Zarakol, MA (Cantab & Wisconsin), PhD (Wisconsin). Official Fellow; College Lecturer in Politics; Reader in International Relations

2013

Alexander Mitov, MSc (Sofia), MA (Cantab & Rochester), PhD (Rochester). Official Fellow; College Lecturer in Physics; Reader in Theatrical Physics

2014

Christopher Alexander Hunter, MA, PhD, Hon DSc (Ulster), FRS, HonMRIA. Official Fellow; College Lecturer in Chemistry; Herchel Smith Professor of Organic Chemistry

Daniel John Nicholas Credgington, MA, PhD (Lond). Official Fellow; College Lecturer in Physics and Director of Studies; Royal Society Research Fellow in the Department of Physics

Alexander Thomas Archibald, BSc (Bristol), MA, PhD (Bristol). Official Fellow; College Lecturer in Chemistry; Director of Studies in Natural Sciences (Physical); University Lecturer in Chemistry

Giovanna Biscontin, MA, PhD (Berkeley). Official Fellow; College Lecturer in Engineering; University Lecturer in Engineering

Stergios Antonakoudis, BA. Meggitt Research Fellow; Director of Studies in Pure Mathematics

2015

Katherine Emma Spence, MA, PhD. Official Fellow; Tutor; College Lecturer in Archæology and Director of Studies; University Senior Lecturer in Archæology

Dominique Olié Lauga, BS (Ecole Polytechnique), MS (Ecole Nationale des Ponts et Chaussées), MA (Cantab & Paris), PhD (MIT). Official Fellow; College Lecturer in Economics; University Senior Lecturer in Marketing

2016

Caroline Egan, BA (Penn State), MA (Penn State), PhD (Stanford). Official Fellow; College Lecturer in Spanish and Director of Studies

Simone Agnes Ingridsdotter Kotva, BA, MPhil, PhD. Research Fellow

James Edward Hillson, BA MA (York). Research Fellow

Emma Victoria Yates Sukdao, MPhil, BA (Princeton), PhD. Research Fellow

Andrea de Luca, BA (Naples), MEng (Naples). Research Fellow

2017

Thomas Sauerwald, PhD (Paderborn). Official Fellow; College Lecturer in Computer Science and Director of Studies; University Senior Lecturer in Computer Science and Technology

Bettina Gisela Varwig, BM (Lond), PhD (Harvard). Official Fellow; College Lecturer in Music; University Lecturer in Music

Charlotte Alice Bentley, MA (Cantab & Nottingham). Research Fellow

Emma Stone Mackinnon, BA (Harvard), MA (Chicago). Research Fellow

Vinesh Maguire-Rajpaul, BSc (Cape Town), MSc (Cape Town). Research Fellow

2018

Koji Hirata, BA (Tokyo), MPhil (Brist), PhD (Stanford). Research Fellow

Matthew Alexander Leisinger, BA (Western Ontario). Research Fellow

Scott Melville, MPhys (Oxon). Research Fellow

Daniele Cassese, BSc (Siena), MSc (Siena), PhD (Siena). Mead Research Fellow in Economics

Pallavi Singh, MSc (Lucknow), PhD (JNU Delhi). John Henry Coates Non-Stipendiary Research Fellow

EMERITUS FELLOWS

1962, 1984

Christopher Donald Pigott MA, PhD

1974, 1990

David Stuart Lane BSocSc (Birmingham), DPhil (Oxon)

1981

James Derek Smith MA, PhD, CEng, MIMechE

1996

James Duncan MA (Syracuse), PhD (Syracuse)

1997

David John Tolhurst MA, PhD

2000

Lawrence Eliot Klein BA (Rochester), MA (Johns Hopkins), PhD (Johns Hopkins)

2007

Jonathan William Nicholls PhD, BA (Brist)

BYE-FELLOWS

2003

Robert Daniell Sansom, MA, PhD (Carnegie Mellon)

2004

Jack Arnold Lang, MA. Director of Studies in Management Studies; Entrepreneur-in-Residence, Centre for Entrepreneurial Learning (CfEL), Judge Business School; Affiliated Lecturer in Computer Science

Simon Lebus, MA (Oxon). Former Group Chief Executive of Cambridge Assessment (University of Cambridge Local Examinations Syndicate)

2005

Richard Godfray de Lisle, MA, IMC

2007

James Oscroft Wilkes, MA, PhD (Michigan). Arthur F Thurnau Professor Emeritus of Chemical Engineering, University of Michigan

2009

David John Lomas, MA, MB, BChir. Director of Studies in Clinical Medicine; Professor of Clinical MRI

2011

Stephen John Cowley, MA, PhD. Director of Studies in Applied Mathematics; Professor of Applied Mathematics

2012

Sylvia Richardson, PhD (Nottingham), DDÉtat (Paris Sud-Orsay). Professor of Biostatistics, Director of the MRC Biostatistics Unit

2013

Ashley Alan Brown, MB, BS (Lond), MD FRCS. College Lecturer in Anatomy and Director of Studies

2014

Stephen Ian Gurney Barclay BA, MD, BM (Oxon), BCh (Oxon) MSc (Lond). Director of Studies in Clinical Medicine; University Senior Lecturer in General Practice and Palliative Care

Ioanna Mela-Fyffe, PhD, MSc (Nott). Post-doctoral Research Associate in the Department of Pharmacology

2015

Daniel Popa, PhD, LS (Rome). Senior Research Associate in the Department of Engineering and Director of Studies in Engineering

2015

Ian Michael David Edwards, MA. Partner, More Partnership

Baron Jean Christophe Iseux von Pfetten, MSc (Oxon), MSc (Strasbourg), Dipl. Eng (Strasbourg) Visiting Professor (People's University of China); President of the Institute for East West Strategic Studies.

2016

Hernández Javier Ortega, BA (Mexico), MSc (Brist). Herchel Smith Post-Doctoral Fellow in the Department of Zoology

Lorenzo Di Michele, PhD, MA (L'Aquila). Oppenheimer Research Fellow in the Department of Physics

2017

Paul Oliver Wilkinson, MA, MB, BChir, MD, DCh, MRCPsych. Director of Studies in Clinical Medicine; University Lecturer and Honorary Consultant in Child and Adolescent Psychiatry

Sarah Elizabeth D'Ambrumenil LLB (Cardiff). Head of the Office of Student Conduct, University of Cambridge

Alexandre Campsie, MA MPhil, PhD. Temporary University Lecturer in Twentieth-Century British History

2018

Tobias Henning Wauer, PhD, BSc (Munich). Sir Henry Wellcome Fellow, Laboratory of Molecular Biology

Shawn Michael Bullock, BSc (Waterloo), BEd (Queens), MEd (Queens), MA (Toronto), PhD (Queens), PPhys. Director of Studies in Education. University Senior Lecturer, Faculty of Education

Christopher Whitney, MA (Toronto), MBA (York). Director of Principal Gifts, Cambridge University Development Office

John Charles Miles, BA (Durham), MA, PhD (Cranfield), FREng, CEng, FIMechE. Arup/Royal Academy of Engineering Professor of Transitional Energy Strategies

Peter Ian Foggitt, MA, PGDip (Trinity,) MMus (Guildhall). Director of Chapel Music

Christina Joy Woolner, MPhil, BA (Wilfrid Laurier), MA (Notre Dame)

BENEFACTOR FELLOWS

2006

John Edward Meggitt, MA, PhD

Dorothy Meggitt

2014

Edward Scott Mead, MPhil, BA (Harvard), JB (Penn)

2018

Margaret Betty Glasgow, LLB (Liverpool)

BENEFACTOR BYE-FELLOWS

2006

Peter Michael Beckwith, OBE, MA, Hon LLD

Robert Daniell Sansom, MA, PhD (Carnegie Mellon)

2008

Robert Derek Finlay, MA

2009

David John Brittain, MA

Teresa Elaine Brittain, BA (Open), BSc (Colorado), MSc (Colorado)

2010

Stella Ho

Tzu Leung Ho, MD (Chicago), FACS

David Beech, MA

Judith Margaret Beech, Dip (Central School of Speech & Drama)

Donna Brigitte McDonald

Kevin McDonald, OBE

2011

Georgina Sarah Cutts

Philip Nicholas Cutts

2012

John Francis Ballantyne Marriott, BA

2014

Michael John Jones, OBE, MA

2016

Nancy S Milton, BA (Louisville), MS (Houston)

Tom Martin, MA

DEREK BREWER VISITING RESEARCH FELLOWS, 2018–19

Michaelmas

Andrew Frederick Christie, PhD, BSc (Melbourne), LLB (Melbourne), LLM (Lond)

Lent

The Rt Hon Sir Stephen Rothwell O'Brien, KBE, MA

Charles Philip Fernyhough, MA, PhD

COLLEGE RESEARCH ASSOCIATES, 2018–19

2013

Alison Knight, PhD, BA (UBC), MA (Victoria)

Annela Anger-Kraavi, PhD, BSc Tallinn, MSc Tartu

2014

Jordan Claridge, BA (Alberta), MA (Alberta), PhD (UEA)

2015

Diego Núñez Villanueva, BSc (Malaga), MSc (Complutense), PhD (Complutense)

Giulia Iadevaia, BA (Rome), MSt (Rome), PhD (Sheff)

Maria Cristina Misuraca, PhD (Sheff)

Mark James Williamson, BA (Imperial), PhD (Imperial)

Christopher John Joseph Moses, MA, MPhil (Oxon)

2016

Nicolas Ruffini-Ronzani, MA (Louvain), PhD (Namur)

Maria Martin de Almagro, MA (College of Europe), MPP (Michigan), PhD (Brussels), PhD (LUISS Guido Carli, Rome)

2017

Véronique Samson, BA (McGill), MA (McGill), PhD (McGill)

2018

Joanna Waldie, MSci, MA, PhD

Edmund Kay, MEng, MA, PhD

Diarmuid Hester, BA (Dublin), MA (Sussex), PhD (Sussex)

THE COLLEGE STAFF

ARRIVALS

Bursary

Eamon Byrne (trainee payroll and accounts assistant)

Harriet Carey (conference manager)

Catering

Daniel Borocz (chef de partie)

Estefania Correa Gil (buttery shop assistant)

Alexander Howell (cellar assistant)

Tamas Illes (chef de partie)

Rhys Matthews (chef de partie)

Johnathan Stevens (senior food service supervisor)

Remel Toca (chef de partie)

Development Office

Daniel Iredale (development assistant)

Gardens

Oliver MacDonald (apprentice gardener)

Tom Smith (gardener)

Household

Ioana Achim (bedmaker)

Alina Da Silva Machioro (bedmaker)

Maria E Puerta Vazquez (bedmaker)

Master's Lodge

Michele Anderson (Master's personal assistant)

Tutorial Office

Sonia Fresco (tutorial & admissions administrator)

Karen Morris (college registrar maternity cover)

DEPARTURES

Bursary

Clive Gatford (college accountant)

Catering

Chris Gregoris (kitchen porter)

Rhys Matthew (chef de partie)

Conference Office

Sarah Banbery (conference manager)

Gardens

Jack Sharp (assistant head gardener)

Household

Silvia Adolphson (bedmaker)

Agniewszka Falkiewicz (bedmaker)

Maria Puerta Vazquez (bedmaker)

Library

Alison French (library cataloguer)

Maintenance

Jonathon Aird, (maintenance assistant)

Master's Lodge

Jane MacMillan (Master's personal assistant)

Academic Record

MATRICULATIONS

The number of matriculations during the academical year 2017–18 was 212. The names are given below:

Undergraduates

Arbuthnot, Rose
The Sixth Form College, Colchester
Veterinary Medicine

Ackland, James Alexander
George Heriot's School, Edinburgh
Human, Social & Political Sciences

Ali, Jabin Hibatullah
James Allen's Girls' School, London
English

Banerjee, Ema
Newstead Wood School, Orpington
Linguistics

Barker, Molly Elizabeth
Highworth Grammar School, Ashford
Mathematics

Baudry, James
Wellington College, Crowthorne
Medicine

Beh, Brendan Wye Hsien
Concord College, Shrewsbury
Natural Sciences

Bills, Joseph Andrew
Westcliff High School for Boys
Asian & Middle Eastern Studies

Birdseye, Thomas Edward
Spalding Grammar School
Geography

Boud, Jacob
Colchester Royal Grammar School
Classics

Boyd, Gregory
Ecclesbourne School, Duffield
Natural Sciences

Boyd-Taylor, Poppy Rose
St Paul's Girls' School, London
Natural Sciences

Bregstein Guitard, Anna Sofia
English International College, Marbella
Law

Brese, Amy
Woodhouse College, London
Philosophy

Bretschneider, Jenny
Universität Leipzig, Germany
Modern & Medieval Languages

Brode-Roger, Adeline Nicole
Lycée Français Jean Monnet, Brussels, Belgium
Human, Social & Political Sciences

Bulutoglu, Katriya Shanti Sethi
Henrietta Barnett School, London
Geography

Byrom, Daniel Peter
Notre Dame High School, Sheffield
Mathematics

Care, John Andrew
Bolton School Boys' Division
Medicine

Chadwick, Malcolm William
Pate's Grammar School, Cheltenham
Computer Science

Chan, King Shun
Dulwich College, London
Engineering

Chan, Thomas
Dr Challoner's Grammar School, Amersham
Engineering

Chang, Yi Ning
Hwa Chong Institution, Singapore
Human, Social & Political Sciences

Chen, Junwen
The High School of Glasgow
Medicine

Cheong, You Zhen Brandon
Sevenoaks School
Economics

Clayton, Amy
Chatham & Clarendon Grammar School, Ramsgate
Engineering

Claytor, Emily
Notre Dame High School, Sheffield
English

Crofts, Emma Clare
Brighton College
Philosophy

Csontos, Gabor Mark
Milestone Institute, Budapest, Hungary
Geography

Dale, Stanley
Highgate School, London
Medicine

De Paepe, Mattijs Willem
British School of Brussels, Tervuren, Belgium
Engineering

Dees, Sarah
iUniversity Prep, Texas, USA
Law

Denis, Leila
Strothoff International School, Dreieich, Germany
Law

Deutsch, Richard
King Edward VI Camp Hill School for Boys, Birmingham
Natural Sciences

Doi, Kazuki Charles
Yokohama International School, Japan
Natural Sciences

Dunne, Sebastian
Heathside School & Sixth Form, Weybridge
Medicine

Edwards, Patrick Arran
King Edward's School, Edgbaston
Modern & Medieval Languages

English, George Frederick Fergal
Abingdon School
Medicine

Evans, Emily Jane Anne
Ripon Grammar School
History

Everingham, Daisy Patricia
Southend High School for Boys Academy Trust
History

Evtushenko, Alexander
Sevenoaks School
Chemical Engineering

Farley, James Henry Matthew
Adams' Grammar School, Newport
Human, Social & Political Sciences

Foster-Hall, Dounia Myfanwy Ludmilla
Henrietta Barnett School, London
Natural Sciences

Gbenoba, David
Brampton Manor Academy, London
Economics

Geng, Richard Yingjian
Hills Road Sixth Form College, Cambridge
Natural Sciences

Georgiou, Fernando
Ermysted's Grammar School, Skipton
Engineering

Godden, Jessica Mary
Westminster School, London
Natural Sciences

Good, Alice Penelope
The Judd School, Tonbridge
Veterinary Medicine

Gunning, Mollie
Outwood Academy Danum, Doncaster
Veterinary Medicine

Hawkes, Nathan
Didcot Sixth Form College
Computer Science

Heraghty, Finn
Haberdashers' Aske's Boys' School, Elstree
Engineering

Holl-Allen, Genevieve Grace
The Tiffin Girls' School, Kingston-upon-Thames
Modern & Medieval Languages

Holy-Hasted, William
Eton College, Windsor
Human, Social & Political Sciences

Horton, Hannah
Oxford High School GDST
Natural Sciences

Hosford, Poppy Jacobine
Bryanston School, Blandford Forum
Natural Sciences

Hutton, Matthew Francis
Royal Grammar School, Newcastle-upon-Tyne
Mathematics

Iceton, Jonathan
Emmanuel College, Gateshead
Music

Jain, Sahil
St Olave's & St Saviour's Grammar School, Orpington
Mathematics

Jennings, Hannah Joy Berghahn
The Cherwell School, Oxford
Modern & Medieval Languages

Kalinina, Anastasiia
Malvern College
Architecture

Kaljee, Colin
Peebles High School
Archaeology

Kempson, Harriet Lillian Joan
Royal Latin School, Buckingham
Natural Sciences

Khanom, Moriam Kiran
St Pauls' Girls' School, London
History

Kiflie, Yoseph Fekade
Harris Westminster Sixth Form, London
History

King, William Robert
King's College School, London
Mathematics

Knott, Samuel
Waldegrave School, Twickenham
Natural Sciences

Kokkaparampil, Neil Varughese
Reading School
Economics

Kong, Isabella
Harrow International School, Hong Kong
Geography

Korsgren, Clara Maria
Internationella Engelska Gymnasiet Sodermalm, Stockholm, Sweden
Human, Social & Political Sciences

Koutsogeorgos, Parmenion
Mandoulides Schools, Greece
Mathematics

Lam, Hoi Yat Emmanuel
The Chinese University of Hong Kong
Human, Social & Political Sciences

Lane, James Peter
Glyn School, Epsom
Mathematics

Langtry, Max Alexander
Royal Grammar School, Newcastle-upon-Tyne
Engineering

Lansley, Chloe
Norwich High School for Girls
Classics

Lee, Hakyung
The Tiffin Girls' School, Kingston-upon-Thames
English

Li, Tong
Merchant Taylors' Girls' School, Crosby
Engineering

Lloyd, Samuel
Sevenoaks School
Psychological & Behavioural Sciences

Lyon, Matteo
Liceo Scientifico Vittorio Veneto, Milan, Italy
Mathematics

Ma, Erik
Kungsholmens Gymnasium, Stockholm, Sweden
Mathematics

McQuillan-Howard, Grace Ruth
Kendrick School, Reading
Mathematics

Madden, Francis James
Altrincham Grammar School for Boys
Psychological & Behavioural Sciences

Maguire, Eileen Amra
City of London School for Girls
Modern & Medieval Languages

Mahony, Lucy
Abbey School, Reading
Natural Sciences

Mainon, Chloe
Emrys Ap Iwan School, Abergele
History

Marshall, Max Edward
St Paul's School, London
Geography

May, Hannah
Stratford Girls' Grammar School, Stratford-upon-Avon
Engineering

Men, Jinghao
The High School Affiliated to Renmin University, Beijing, China
Natural Sciences

Meng, Yinuo
St Mary's School, Cambridge
History

Merali, Sakinah
Royal Latin School, Buckingham
Natural Sciences

Milner, George Dennis Maynard
Exeter School
Medicine

Morgan, Lloyd Alexander
The Portsmouth Grammar School
Medicine

Nash, Melissa Felicia
Bedford Girls' School
Engineering

Nawaz, Sajawall Sirdaar
Wilson's School, London
Medicine

Norrey, Marcus Ian
Eton College, Windsor
Medicine

Olanrewaju, Priscilla Oluwaferanmi
The Tiffin Girls' School, Kingston-upon-Thames
Architecture

Padt, Isabella Georgina
Latymer Upper School, London
Geography

Patel, Dhruv Girish
Queen Elizabeth's School, London
Medicine

Patel, Sachin Niam
The Hazeley Academy, Milton Keynes
Engineering

Pickford, Megan Elisabeth
The Chase School, Malvern
English

Powell, Charles William
Exeter Mathematics School
Mathematics

Provan Resina Rodrigues, Sophia Louise
Hills Road Sixth Form College, Cambridge
Natural Sciences

Richards, Emily Grace
Hitchin Girls' School
Medicine

Robert-Tissot, Gabriel
Highgate School, London
Natural Sciences

Robinson, Finnian Michael
Dulwich College, London
History

Rodgers, Matthew Steven
Bedford Modern School
Medicine

Saw, Khai Khai
Raffles Junior College, Singapore
Medicine

Schwefel, Matilda
The Tiffin Girl's School, Kingston-upon-Thames
Classics

Scorey, Winefride
Moorlands Sixth Form College, Cheadle
Medicine

Scott, Peter
Brentwood School
Engineering

Simpson, Edan Jules
Silverdale School, Sheffield
History

Singh, Navjoth Ghag
King Edward's School, Edgbaston
Engineering

Singh, Sabrina Chandani Simran
King Edward VI Grammar School, Chelmsford
Engineering

Smith, Anya Genevieve
Cardinal Newman School, Hove
Theology, Religion & Philosopy of *Religion*

Smith, Oliver Matthew
UTC Sheffield
Engineering

Smith-Gordon, Lionel Henry Yuji
Wellington College, Crowthorne
Asian & Middle Eastern Studies

Softly, Alice Matilda
Emmanuel College, Gateshead
Natural Sciences

Soloviev, Daniil Olegovich
Stanislascollege Westplantsoen, Delft, The Netherlands
Natural Sciences

Stevens, Martha
Beaconsfield High School
Engineering

Stone, Cameron
Eltham College, London
History & Politics

Stuart-Turner, Henry
The Bishop's Stortford High School
Medicine

Styles, William Tomasin
St Paul's School, London
Economics

Tewson, Eliza
Magdalen College School, Oxford
English

Thomas, Charles Perran Lorn
Westminster School, London
Mathematics

Tokarczyk, Jan Stanislaw
Eton College, Windsor
Natural Sciences

Topper, Robyn
Wymondham College
Geography

Turner, Lauren Claire
Guildford High School
Natural Sciences

van Boxel-Woolf, Louis
City of London School
History & Modern Languages

Villegas Barrera, Raul
Univeridad Complutense de Madrid, Spain
English

Waxenberg, Kaia
Stuyvesant High School, New York, USA
Natural Sciences

Webb, Megan Hannah Grace
Holt School, Wokingham
Music

Webster, Emily Rose
Beaumont School, St Albans
Natural Sciences

Westbrook, Oliver James
Manchester Grammar School
Natural Sciences

Westbrooke, Sophie Anna
Sevenoaks School
Music

Wilkins, Thomas
The Sweyne Park School, Rayleigh
Natural Sciences

Williams, Joel John
St George's School, Harpenden
Engineering

Withers, Mark David
Silverdale School, Sheffield
Natural Sciences

Wong, Tsz Wai
The Chinese University of Hong Kong
Natural Sciences

Worsley, Charles Harry
Dollar Academy
Economics

Zeyrek, Selin
Kendrick School, Reading
Natural Sciences

Zhang, Jingying
Ruthin School
Economics

Graduates

Ahmad, Halah Yasser Mustafa
Harvard University, Cambridge, USA
MPhil in Public Policy

Ahmed, Hamza Omar
London School of Economics & Political Science
MPhil in Finance and Economics

Aksenov, Alexander
Perm State Technical University, Russia
EMBA

Alston, Jovan
Yale University, New Haven, USA
MBA

André, Rémi Fabien
École Supérieure de Physique et de Chimie Industrielles, Paris, France
MPhil in Chemistry

Assaad, Sarah
American University of Beirut, Lebanon
PhD (Probationary) Research in Public Health and Primary Care

Baker, Sera Louise
Goldsmiths College, University of London
MPhil in Sociology

Barros, Tiago Henriques Pinto de
Faculdade de Economia do Porto, Portugal
MBA

Bewes, Thomas Edward Oliver
University of Newcastle upon Tyne
MPhil in Planning, Growth & Regeneration

Blujdea, Ciprian Florin
University of Southampton
MPhil in Industrial Systems, Manufacture & Management

Bristow, Elizabeth Joanna
Anglia Polytechnic University, Cambridge
PGCE: Secondary Art and Design

Brosh, Osama
Williams College, Williamstown, USA
MPhil in Biological Science at the Department of Genetics

Brough, Fiona Edith Jean
University of British Columbia, Vancouver, Canada
MPhil in Education (Thematic Route)

Burt, David Robert
Williams College, Williamstown, USA
MPhil in Machine Learning, Speech & Language Technology

Carpenter, Rory
University of Nottingham
MPhil in Translational Biomedical Research

Chemnitzer, Felix
Nordakademie Hochschule der Wirtschaft, Elmshorn, Germany
MFin

Chen, Xueyi
University of Manchester
MPhil in Economics

Correa, Roberto Johannes
Imperial College London
PhD (Probationary) Research in Zoology

Coyle, Jasmine Victoria
University of Cape Town, South Africa
LLM

Davies, Frederick Thomas
Durham University
MPhil in Real Estate Finance

De Oliveira Paes, Lucas
Universidade Federal do Rio Grande do Sul, Brazil
PhD (Probationary) Research in Politics & International Studies

Dinneen, Mairead Mary
University College Cork, Ireland
LLM

Dolezal, Jakub
Edinburgh University
PhD (Probationary) Research in Applied Mathematics & Theoretical Physics

Doyle, Julia Ailis
London School of Economics & Political Science
PhD (Probationary) Research in Multi-disciplinary Gender Studies

Fan, Jingwen
Xiamen University, China
PhD (Probationary) Research in Medicine

Hamilton, Chris
Merton College, Oxford
PhD (Probationary) Research in Applied Mathematics & Theoretical Physics

Hammer, Alexander Johannes Sebastian
University of Heidelberg, Germany
MPhil in Chemistry

Ho, Jonathan
McMaster University, Canada
MPhil in Translational Biomedical Research

Hoyt, Emily Anna
Williams College, Williamstown, USA
MPhil in Chemistry

Hui, Jik Fai Jeffrey
University of Bristol
MSt in Social Innovation

Jones, Kelly
University of East Anglia, Norwich
MPhil in Medical Science at the Department of Surgery

Kastner, Alexander Sebastien
Williams College, Williamstown, USA
MASt in Pure Mathematics

Kraisingkorn, Touchapon
The University of Edinburgh
MBA

Kulenkampff, Klara
Ludwig-Maximilians-Universitat München, Germany
PhD (Probationary) Research in Chemistry

Kuria, Mukami Nyokabi
London School of Economics & Political Science
LLM

Li, Liang
China University of Political Science & Law, Beijing, China
Certificate of Postgraduate Studies in Legal Studies

Long, Maximilian Edward
Princeton University, USA
MPhil in English Studies

Löwbäck, Alexander
The Royal Institute of Technology, Stockholm, Sweden
MBA

Mannoni, Christian
University of Geneva, Switzerland
EMBA

Masson, Golnessa
Queen Mary, University of London
MPhil in Primary Care Research

Mennie, Lin
Herriot-Watt University, Edinburgh
EMBA

Mensah, Terrance Selasi
Williams College, Williamstown, USA
MPhil in Medical Science at the Department of Clinical Neurosciences

Miller, Melanie
Technical University of Munich, Germany
PhD (Probationary) Research in Chemistry

Miralaei, Aida
Sharif University of Technology, Tehran, Iran
Certificate of Postgraduate Studies in Computer Science

Mishkin, Pamela Fine
Williams College, Williamstown, USA
MPhil in Technology Policy

Montero, Gaspar Bruner
University of Wisconsin-Madison, USA
PhD (Probationary) Research in Genetics

Morgan, Hannah Louise
Royal Academy of Music, London
PGCE: Secondary Music

Müller, Tamara Tina
Ludwig-Maximilians-Universitat München, Germany
MPhil in Advanced Computer Science

Nie, Jiaqi
Northwestern University, Evanston, USA
EMBA

Oates, Rebecca
St Hilda's College, Oxford
MPhil in English Studies

Palenikova, Petra
Charles University, Prague, Czech Republic
PhD (Probationary) in Biological Science at the MRC Mitochondrial Biology Unit

Parker, Abigail Keeler
Harvard University, Cambridge, USA
PhD (Probationary) Research in Zoology

Pemberton, Christian Matthew
Exeter College, Oxford
EMBA

Philpott, Matthew Alexander
University of Manchester
PhD (Probationary) Research in Materials Science & Metallurgy

Rezaei, Shawheen Justin
Harvard University, Cambridge, USA
MPhil in Development Studies

Roussou, Georgia
Ethniko Metsovio Polytechneio, Athens, Greece
PhD (Probationary) Research in Chemical Engineering

Ryan, Matthew Douglas James
University of Sydney, Australia
MPhil in Economic & Social History

Sborshchikova, Alexandra
Lomonosov Moscow State University, Russia
MFin

Sednev, Timofei
University of Surrey
MPhil in Technology Policy

Sharma, Aaditya
Williams College, Williamstown, USA
MASt in Pure Mathematics

Sipkova, Jana
Imperial College London
MPhil in Developmental Biology

Stocker, Octavia
University of Warwick
MPhil in English Studies

Sturgess, Julia
King's College London
MEd

Ver Steeg, Nathaniel Patrick
Harvard University, Cambridge, USA
MASt in Mathematical Statistics

Vilas, Nathaniel Boyd Zillioux
Williams College, Williamstown, USA
MPhil in Physics

Walsh, Danielle Veronica Nicole
Oxford Brookes University
MSt in Social Innovation

Wazzi, Mohamad
University of Surrey
MPhil in Finance & Economics

Yang, Jingyi
University of Toronto, Canada
MBA

Affiliated Students (matriculated as graduates, following undergraduate programmes)

Howe, Nikolaus Harry Reginald
Williams College, Williamstown, USA
Computer Science

Kemsley, Oliver Hugo
University of Durham
Theology for Ministry

Mather, Leila
University of Bristol
Theology & Religious Studies

French Lectrice

Abdat, Garance
Université Paris IV-Sorbonne, France

SCHOLARSHIPS, EXHIBITIONS AND PRIZES 2018

Bachelor Scholarships

Re-elections:

A I Blanchard, A L Cooke, F C Illingworth, T Isazawa, R D Jacob-Owens, L I Keijer-Palau, F L Kreyssig, R J Ley, O Morely, E I Roberts

Windsor Bachelor Scholarships

Election:

E Phelps

Re-elections:

A Chadha, M E P L Graydon, A Joshi

Honorary Bachelor Scholarships

Elections:

M Duff, A S Kastner, E J McDowell

Re-elections:

B Barton-Singer, D Cugini, J Haddad, C Morgan, F R Y Myatt, E T Okada, A M Patel, T L Tan Ming Hui, B Wang, D Y Yao

Peter Morris Bachelor Scholarship

Re-elections:

R D Jacob-Owens, R J Ley

Adrian Martinez Scholarship

Re-election:

A J Mathias

Senior Scholarships

Elections:

R Appleby (Davies), G Boyd (Davies), P R Boyd-Taylor (Davies), M W Chadwick (Hooper), K S Chan (Frank Marriott), Y N Chang (Ash), G M Csontos (Smith), J P Davies (Braithwaite Batty), M W De Paepe (Frank Marriott), R Deutsch (Davies), S Dhawan (Davies), K C Doi (Davies), S Dragos (Ash), P A Edwards (Saxelby), A Evtushenko (Davies), S Gao (Prettejohn), R Y Geng (Davies), A R P Harrison (Hyett), G G Holl-Allen (Saxelby), H Horton (Davies), M F Hutton (Braithwaite Batty), H J B Jennings (Saxelby), C Kaljee (Langley), W R King (Braithwaite Batty), H C Klyne (Braithwaite Batty), S Knott (Davies), N V Kokkaparampil (Smith), T Lane (Frank Marriott), J P Lane (Braithwaite Batty), M A Langtry (Frank Marriott), S Lloyd (Ash), M Lyon (Braithwaite Batty),

F J Madden (Ash), E A Maguire (Welford-Thompson), O Malmose O'Connor (Ash), J Men (Davies), S Merali (Davies), G D M Milner (Prettejohn), M I Norrey (Prettejohn), E S Patel (Hunter), M G Pozzi (Hooper), M S Rodgers (Prettejohn), K K Saw (Prettejohn), O M Smith (Frank Marriott), R Stoyanov (Braithwaite Batty), W T Styles (Smith), J S Tokarczyk (Davies), R Topper (Smith), L van Boxel-Woolf (Sands), J R Y Z Wang (Owen), S A Westbrooke (Greenwood), J J Williams (Frank Marriott), M K Y Wong (Braithwaite Batty)

Re-elections:

K Barker (Frank Marriott), H Z Chun (Davies), W Croft (Bryant), A N Deo (Braithwaite Batty), E A C Derby (Davies), C Diaconu (Frank Marriott), N Egan (Hooper), B E M Fraser (Smith), T M George (Davies), E Gibbon (Davies), P-E Grimm (Frank Marriott), B J R Harris (Davies), W M Haslam (Smith), H Hughes (Frank Marriott), J A Kershaw (Davies), F Laing (Hyett), A C Lau (Davies), D Liu (Frank Marriott), C G Millar (Frank Marriott), B K Mlodozeniec (Frank Marriott), V Nair (Smith), K P Patel (Smith), R G Peacock (Frank Marriott), E A Phillips (Frank Marriott), S V R Prabhu (Davies), R Proud (Ash), H G Pulver (Frank Marriott), D Remo (Braithwaite Batty), A O Sheat (Davies), J Sutton (Prettejohn), Z K Tan (Hyett), F R Waters (Braithwaite Batty), N Wilson (Frank Marriott), D Yang (Smith)

Senior Exhibitions

Elections:

C A Aberdeen, J A Ackland, F M Ahlers, R Arbuthnot, E Banerjee, N Barnham, J Baudry, B W H Beh, A S Benford, M G E Benjamin, J A Bills, T E Birdseye, A S Bregstein Guitard, E G V Brendon, A Brese, A N Brode-Roger, K S S Bulutoglu, C Campbell, L J Carneiro Mulville, P Charles, Y Z B Cheong, M H Choi, G Cobley, A D Constantinou, K Cook, S Dale, F Davidson, S Dees, L Denis, G F F English, T Eveson, J H M Farley, J W Fishlock, K J Francis, J D C Gandy, D Gbenoba, F Georgiou, R Green, R Gupta, P Hamilton-Jones, N Hawkes, F Heraghty, S R Heritage, W Holy-Hasted, P J Hosford, N H R Howe, J Iceton, W J Irvine, C Johal, A Kalinina, M M Klopotowska, I Kong, C M Korsgren, A A Lawrence, J Li, X Li, E Ma, E A Mabon, G R McQuillan-Howard, L Mahony, M E Marshall, L Mather, H May, A E Moss, M J Murray, S S Nawaz, K E Nelson, I G Padt, S N Patel, C W Powell, S L Provan Resina Rodrigues, J Rammanohar, E G Richards, G Robert-Tissot, O Rowe, H M Rowland, M T Saniewski, M Schwefel, M G Scoones, P Scott, S G Shuttleworth, E P Sides, I Sinclair, S C S Singh, A G Smith, A M Softly, D O Soloviev, M E Spivey, M Stevens, C Stone, C M Swanston, S Y Tan, L C Turner, A T Walsh, H Walsh, K S Waxenberg, E R Webster, S Weiss, O J Westbrook, J F Wharton, M D Withers, C H Worsley, X W Yap, S Zeyrek, J Zhang

Re-elections:

S S Achawal, E B Cole, A D Constantinou, H Crook, H Davidson, J W Deeley, C J Enright, W Eustace, A Freschi, A R B Gravina, A S Gupta, S E A Hammond, S L Ho, J R Honey, G E Hughes, D Kazhdan, L Khalfaoui, D Kirkham, H D Knill-Jones, P N Konda, S Lawford, A K Marzec, A Miranthis, K Mitra, D P Moss, J Oliver, E Pratt, A V Radford, A Raj, C Restarick, T Rizzoli, S J Ruston, A L Sartor, D Smith, T C Spencer, D V Stafford, L R S Stone, R I M Thistlethwayte, C Wallace, A Wineman, J Wood, D Xu

College Prizes

A Adebajo, R Appleby, M Armishaw, K Barker, B Barton-Singer, M M Biddell, A I Blanchard, G Boyd, M J Bradley, E Caroe, A Chadha, M W Chadwick, K S Chan, Y N Chang, H Z Chun, A L Cooke, W Croft, G M Csontos, J P Davies, M W De Paepe, C Del Rio, E A C Derby, R Deutsch, C Diaconu,

K C Doi, W Dorrell, S Dragos, P A Edwards, N Egan, A M Elliott, A Evtushenko, B E M Fraser, R Y Geng, T M George, E Gibbon, P-E Grimm, B J R Harris, A R P Harrison, W M Haslam, G G Holl-Allen, H Horton, H Hughes, M F Hutton, T Isazawa, E M Jenkinson, H J B Jennings, A Joshi, C Kaljee, A S Kastner, J A Kershaw, E Kisz, H C Klyne, S Knott, N V Kokkaparampil, F Laing, J P Lane, T Lane, A C Lau, D Liu, S Lloyd, E J McDowell, F J Madden, E A Maguire, O Malmose O'Connor, J Men, S Merali, G D M Milner, O Morley, V Nair, K P Patel, R G Peacock, E Phelps, O H E Philcox, M G Pozzi, S V R Prabhu, R Proud, E I Roberts, S L Rock, M S Rodgers, K K Saw, W Shaw, A O Sheat, R J G Simon, R Stoyanov, W T Styles, Z K Tan, H B Thorne, D Thorp, J S Tokarczyk, R Topper, C H Tucker, L Van Boxel-Woolf, F R Waters, P Welch, S A Westbrooke, N Wilson, M K Y Wong, D Yang, S I Yu

Named College Prizes and Awards

Abdul Aziz: R T Cochrane

Zainab Aziz: R J Dyer, R Goldring

Bokhari: J Haddad

Braithwaite Batty: M Duff, W R King, M Lyon, E T Okada, D Remo, B Wang

Elisabeth & Derek Brewer: E S Patel

John Clarke Prize (Part IA): M I Norrey

John Clarke Prize (Part II): M E P L Graydon

Robert Dobson: P R Boyd-Taylor

M T Dodds: J C Ganis, F C Illingworth, D Y Yao

Hackett: R J Ley

Henderson: A M Patel

Albert Hopkinson: S Gao

Dick Longden: B Lammin

Colin MacKenzie: J Sutton

Master & Tutors' Prize: S Dhawan, A Power

Pattison: S A M Lockey

Peake: K J Y Wu

Herman Peries: A N Deo

Quadling Prize: R T Cochrane

Bill Ray Prize: E A Phillips

Rodwell: J V Coyle

Peter Slee History Prize: J R Y Z Wang

Edward Spearing: S E P Harrison

Sudbury-Hardyman: P Elmer, A George, G W P Herring, C Morgan, F R Y Myatt, T L Tan Ming Hui

H J & C K Swain: H G Pulver, J J Williams

Dr Arthur Tindal Hart: L I Keijer-Palau

Vaughan Bevan: G H Kim

Wallace: H A Butcher, F L Kreyssig, M A Langtry, C G Millar, B K Mlodozeniec, A N Patwardhan, J Shepherd, O M Smith

Olive Ward Prize: R D Jacob-Owens

Peter Ward Prize: A McGiff

T J Williams: D Cugini

UNIVERSITY AWARDS

Sidney Allen Prize: T L Tan Ming Hui

CASP Notebook Prize: A J Kershaw

De Novo Pharmaceuticals Prize: A M Patel

Kurt Hahn Prize (Option B): H J B Jennings

Institute of Astronomy Prize: O H E Philcox

Institute of Engineering & Technology Manufacturing Engineering Student Prize: J Shepherd

Morcom Lunt Prize: J Shepherd

Mineralogical Society Student Award: B J R Harris

Pharmacology Prize: A M Patel

Polity Prize: Y N Chang

Winifred Georgina Holgate Pollard Memorial Prize: A J Kershaw

Reekie Memorial Prize: A J Kershaw

Theological Studies Prize: G W P Herring

H A Turner Prize: K P Patel

William Vaughan Lewis Prize: M Armishaw, F F Clarke, J C Ganis, S L Rock

Wiltshire Prize: A O Sheat

DEGREES

The following are the principal degrees taken by Emmanuel men and women during the academical year 2017–18:

PHD

Arhin A A
Bentley C A
Brittan O
Callander D
Cook L W
Dai P
Davis H
Fleming P H
Furnival T J O
Green S
Gupta M K
Guttenplan A P M
Heeley N J
Heinemann K J
Holzer S
Johnson E E
Kay E
McLaughlin D
Michel M A
Moses C J J
Nash C
Partap U
Petri O
Rota G
Rudebeck T
Su Y
Ward E J
Wu W
Yearwood M H
Zabolotnaya E

MRes

Ferguson C R
Mantell C J P

MPhil

Acharya A
Bindell S M M
Bricault N
Broadfoot P A D
Cihon P T W
Degenhardt J J M
Dine R L
Dou Q
Farndale R J
Fischer S
Fyson I J
Horn A
Jasrasaria D
Jennings H M
Korman J
Lai F
Lan Y
Lewis S W
Mann J
Marino M G
Menendez Pereda A
Müller T T
Newton R
Oates R
O'Brien S C H
Paparounas E
Qiao L
Reinstadler B
Rezaei S J
Safari Mooki A
Scott Lintott L
Sednev T
Stenton S L
Urquhart K
Wohns A W L

MMath & BA

Barton-Singer B
Duff M
Illingworth F C
Li S W
McDowell E J
Okada E T

MAst

Kastner A S
Sharma A
Ver Steeg N P

MEng & BA

Achakulwisut P
Allen L C
Bryson-Jones H
Butcher H A
Cai Y
Damji A-Z
Del Rio C
Fowler B
George A
Gillard H L
Gu Z
Kreyssig F L
Lewis R L
Naylor S J
Patwardhan A N
Shepherd J
Tinn R
Valla E
Welch P
Wyman C E J

MBA

Anumanrajadhon A
Elcock D W
Sankaran S D
Solarte Rosa N C

Exec MBA

Amiri A H
Kasim H
Lile S
Polat Z
Savian C

MFin

Chi X
Jain A
Luk P L

MEd

Markham-Woods G
Dillon J A
Hume R J
Jenkins T
Thorp H M

MSci & BA

Al-jibury E
Bennett T J D
Bradley M J
Elliott A M
Isazawa T
Morley O
Murison K H
Philcox O H E
Roberts E I
Simon R J G
Thorne H B

MSt

Glendinning L A I

MB

Black A R P
Burton-Papp H
Eleti S
Fawcett M J
Gbegli E S
Jackman S
May-Miller R
Ngaage L M
Sng C C T
Tan J
Worsfold B P

VetMB

Strang Steel A

MCL

Heavens K-A M

LLM

Coyle J V
Dinneen M M
Kuria M N

BA

Abbot A W
Acharya T
Adebajo A
Armishaw M
Baker A
Banasik J E
Bevan T J
Biddell M M
Blanchard A I
Bow A N
Broadway A S
Burke S
Caroe E
Chadha A
Chen H
Cho J Y
Clarke F F
Cochrane R T
Conder H J
Cooke A L
Crabb A
Cugini D
Davies J
Dorrell W
Dyer R J
Elmer P
Emsley A S E
Fraser J W
Ganis J C
Gayne D
Goldring R
Graydon M E P L
Haddad J
Hall W R S
Harrison S E P
Herring G W P
Ho V W Q
Jacob-Owens R D
Jenkinson E M
Johnson T
Joshi A
Kainth M
Keijer-Palau L I
Kim G H
Kisz E
Kubala K K
Lammin B
Leonard S J
Ley R J
Lockey S A M
Macdonald C G G
McGiff A
McKay C J
McLennan I
McMinn J
Maishman E J
Mirsky A W
Mistlin A
Monteiro D N
Morgan C
Myatt F R Y
Nagappan P G
Nicholls E L
Oakley S E
O'Hanlon E
O'Malley C
O'Neill B
Palmer E A
Patel A M
Phelps E
Pimlott G
Power A
Raby-Smith W
Rasbash D
Raveendran M
Rock S L
Roe T
Ryle N
Schymyck L
Sealey I K
Sefton-Minns L
Sharp A
Shaw W
Sherwood T A H
St John-Stevens T
Storer M S
Stylianou H M
Tan Ming Hui T L
Thorp D
Tucker C H
Wang B
Ward L M A
Warren P D
White H E
Wu K J Y
Yao D Y
Yu S I
Zaki F

BTh

Pothen B D K

Members' Gatherings

On 23–24 September 2017 the following members were present at a Gathering:

Master and Fellows

The Master, Dame Fiona Reynolds
Dr Alan Baker
Dr Sarah Bendall
Mr Jeremy Caddick
Dr Robert Henderson
Dr David Livesey
Dr Nigel Spivey
Professor Stephen Watson

Former Fellows

Dr David Souden
The Reverend Canon Dr Philip Ursell

Honorary Fellows

Professor Chris Husbands
Professor Peter Slee
Ms Moira Wallace

Bye-Fellow

Dr Robert Sansom

1978

Mr Mark Andrew
Mr Julian Annis
Mr Paul Booer
Mr Tim Butler
Mr Gary Brennan
Mr Peter Clark
Mr Peter Chapman
Professor Alun Davies
Professor Michael Davies
Mr Neil Dunlop
Mr David Elliott
Mr Jonathan Evans
Mr David Garratt
Dr Rob George
Dr John Gillett
Mr Trevor Griffiths
Mr Martyn Hole
Mr Christopher Horton
Mr Chris Longstaffe
Dr Ian Lyttle
Mr John Jameson
Mr David McEvoy
Mr Andrew Martin
Mr Nicholas Osler
Mr Phillip Palmer
Mr David Pettitt
Mr Gary Phillips
Mr Richard Powell
Mr Kevin Pocock
Mr Andy St John
Mr Peter Stewart
Dr David Smeed
Mr Geoff Tingle
Mr Richard Webber
Dr Martin White
Dr Jo Whitehead
Mr John Wilford
Mr Peter Wilkinson
Mr Phil Young

1979

Dr Nigel Adams
Mr Peter Allen
Mr Mark Arnett
Mr David Archer
Mr Steve Barlow
Mr Peter Berns
Mr Andrew Broomhead
Mr Mark Boult
Dr Mike Burnett
Mr Tim Curtis
Mrs Beth Coward (née Harrison)
Mr Gary Cole
Dr Elaine Davis
Professor Jonathan Dickens
Ms Sarah Doole
The Reverend Henry Everett
Mr Paul Fellows
Mr Robert Folkes
Mr Nicholas Ford
Mr Simon Fothergill
Mr Peter Frost
Mr Robert Gale
Dr Anna Green (née Medlik)
Ms Heather Gibson
Ms Fiona Hook
Mr Ian Holdsworth
Mrs Catherine Hall (née Starkey)

Mr David Hampton
Dr Neil Henfrey
Mrs Gillian Jewell (née McKechnie)
Professor David Lewis
Mr Ian Mackley
Mr Gary Keall
Mr Mike Langhorn
Mr Philip Lawton
Mrs Annabel Malton (née Chisholm)
Mr Gerald Malton
Mr Antony Mannion
Mrs Nina Martin (née Cumberland)
Dr Graham Milligan
Mrs Rosanna Moseley Gore (née Price)
Dr Pat Mulhern
Dr Louise Oliver
Mrs Sian Pettitt (née Davies)
Mr Andrew Porter
Mr Nigel Quinton
Mrs Bettina Rex (née Gazzi)
Mrs Jane Richardson (née Mountfield)
Mrs Jane Smith (née Dunlop)
Mr David Sneesby
Mrs Gill Taylor (née Worsley)
Mr David Tracey
Mrs Louise Tunbridge (née Norie)
Mr Allan Walker
Mr Alan Williams

1980

Ms Claire Allison
Mr Robert Baldwin
Mr Clive Bates
Colonel Giles Baxter
Ms Joanna Blishen
Mr Martin Blundell
Mr David Buchan
Dr Nick Butterworth
Ms Caroline Cabraal
Dr Piers Copham
Mr Steve Corfield
Ms Fiona Clark
Mr Ken Clays
Mr Phil Crowhurst
Dr Julia Davis
Mr Alan Davies
Mr Andrew Dilworth
Mrs Kate Dickson (née Wood)
Mr Bruce Eadie
Mr Mark Goodman
Ms Janet Gough
Mr Michael Haddock
Dr Sue Harvey
Mr Paul Hemingway
Professor Jonathan Huntley
Mr Stuart Jackson
Mr Eric Johnson
Mr Laurence Levy
Mr Craig McCoy
Mrs Lara May (née Blair)
Dr Chris Magin
Ms Susan Muncey
Mrs Helen Nesom (née Scott)
Mr Andrew Nevill
Mrs Sarah Norman
Ms Ceri Oram
Mr Nigel Parker
Mrs Judi Peachey (née Sears)
Dr Rosalind Ramsay
Mr Stephen Ramsay
Mr Paul Richards
Ms Anne Richardson
Mr Jonathan Robson
Ms Patricia Strickland
Dr Harriet Strain
Mr Nigel Shaw
Dr Simon Shaw
Mr Daljit Sidhu
Mr Mark Thomas
Mr Stephen Thorn
Dr Veronica Tuffrey
Mrs Diane Todd (née Davies)
Mr Nick Turner
Mrs Wendy Walsh (née Griffin)
Mr Paul Watmore
Dr Stephen Wilmshurst

1981

Ms Jennie Appleyard

On 24–25 March 2018 the following members were present at a Gathering:

Master and Fellows

The Master, Dame Fiona Reynolds
Dr Sarah Bendall
Dr David Livesey
Professor Glynn Winskel

Former Fellows

Professor Michael Whitaker
Professor Bob White

1968

Mr Peter Thompson

1970

Mr George Allan
Mr Geoffrey Biddulph
The Revd Paul Boddam-Whetham
Mr Chris Boothby
Mr Edmund Brookes
Mr Sean Byrne
Mr Ian Critchley
Mr Roger Crowley
Mr Sumant Dhamija
Mr Edward Dodge
Mr Martin Dow
Professor David Dunstan
Dr Christopher Durkin
Dr Nick Foggo
Commander Nigel Gates
Mr David Griffiths
Mr Hamid Habibi
Mr Mark Hackforth-Jones
Dr John Horner
Mr David Keighley
Mr Nigel Kenyon Jones
Mr Mark Lewis
Mr Barry Lunt
Mr Andrew Lutley
Mr Richard Mapletoft
Mr Roger Martin
Mr Alick Miskin
Mr Jonathan Roper
Mr Benj Russell
Dr Andrew Swann
Mr Andrew Taylor
Mr Christopher Trillo
Mr Trevor Wald
Mr Roger Watkins
Mr Bob Wilkinson
Mr Hugh Williamson
Mr John Williamson
Dr Stephen Wright

1971

Mr Graham Airs
Mr Martin Atherton
Mr Brian Baker
Mr Chris Barker
Mr Roger Berry
Mr Guy Bethell
Mr Tom Boardman
Mr Richard Boulter
The Revd Professor Nigel Cameron
Mr Laurie Cheney
Mr Paul Dawson
Professor Martin Dzelzainis
Mr Richard Evans
Dr Ashley Ford
Mr Ian Graham
Mr Mike Harris
The Revd Peter Harris
Professor Alan Harvey
Mr Gary Hodgson
Professor Malcolm Irving
Mr Michael Kemp
Mr Peter Lutton
Mr Nigel Lyle
Mr Iain Mackay
Dr James Mellor
Mr John Middleditch
Mr Roger Morris
Mr Geoffrey Moses
Mr Russell Newall
Mr Tony Palmer
The Revd Andrew Petit
Dr Peter Quiggin
Mr David Smethurst
Mr David Smith
Mr Nick Smith
Mr Richard Smyth
Mr Granville Taylor
Mr Adrian Walker
Mr David Ward
Mr Lionel Warner
Mr Murray Watts
Mr David Yeandle

1972

Professor Phil Batman
Mr Richard Biggs

Dr Peter Bowen-Davies
Mr Jamie Byrom
Mr Stephen Canham
Dr Peter Cavanagh
Dr Andrew Chapman
Dr Martin Eales
Dr Huw Edwards
Mr Chris Eldridge
Dr Michael Goodyear
Mr Ian Greenfield
Mr John Griffiths
Mr Timothy Hancock
Mr Alan Hill
Mr Dick House
Dr Geoffrey Hunnam
Dr Rick Jefferys
Mr John Kendal
Mr Jonathan Lamming
Mr William Lawrence-Jones
Dr Mike Michell
Mr Duncan Milroy
Mr Craig Muir
Mr Shaun Mundy
Mr Derek Oliver
Mr Nick Parker
Dr Philip Powell
Mr Nigel Price
Professor Trevor Price
Mr Chris Ramsden
Dr Graham Reilly
Dr Julian Scott
Professor Brian Stanley
Mr Andrew Taylor
Mr Alec Tompson
Mr David Webber
Mr Philip Wragg
Mr Clive Wright
Mr Paul Wright
Mr Laurence Wyatt

FUTURE GATHERINGS OF MEMBERS

Dates given against each Gathering refer to the year of matriculation and not of graduation

23 March 2019:	2005, 2006, 2007
28 September 2019:	1997, 1998, 1999
March/April 2020:	1989, 1990, 1991
September 2020:	1981, 1982, 1983
March/April 2021:	1973, 1974, 1975
September 2021:	1960 and all previous years
March/April 2022:	2008, 2009, 2010
September 2022:	2000, 2001, 2002
March/April 2023:	1992, 1993, 1994
September 2023:	1984, 1985,1986
March/April 2024:	1976, 1977,1978
September 2024:	1967, 1968, 1969, 1970, 1971,1972
March/April 2025:	2011, 2012, 2013
September 2025:	2003, 2004 2005
March/April 2026:	1995, 1996, 1997
September 2026:	1987, 1988, 1989
March/April 2027:	1979, 1980, 1981
September 2027:	1966 and all previous years

Invitations will be sent a few months in advance of each gathering to all members who matriculated in the years shown, and for whom the college has a current address.

If special circumstances mean that an invitation would be welcome to a gathering other than one for your matriculation year, please contact the Development Office.

DEATHS

A requiem is held each year in the college chapel on or near All Souls' Day, (2 November), at which members and staff of the college whose deaths we have learned about in the preceding year are remembered, along with others. All are very welcome to attend. Please contact the Development Office, (development-office@emma.cam.ac.uk, Telephone +44 (0)1223 330476), if you are intending to come, to ascertain the exact date and inform them of your intention to attend.

We are saddened to announce the deaths of many members and are very grateful to relatives and friends who let us know. News of deaths received after 1 July will be recorded in next year's *Magazine*. The names are arranged in order of matriculation date and † denotes that there is also an entry in the Obituaries section (p. 311). We would be glad to receive fuller appreciations of those whose deaths are only listed here so that we can publish an obituary in another year.

PATRICK JAMES WENGER–BYRNE (1925)

ARTHUR NICHOLLS (1926)

HAROLD ROSS LEWIN (1927)

ROBERT DEAN BROOKS WILLS (1927)

ARTHUR JOHN WEITBRECHT CLARKE (1930)

RONALD DAVIES (1933) – 12 December 2017

JOHN REGINALD ATKINS (1936) – 27 March 2018

JOHN JESPER EADES† (1938) – 5 March 2018

JOHN OSWALD LAWS (1938) – 7 February 2017

KENNETH GLOVER MURDEN (1938) – 30 July 2013

CHARLES WILLIAM TONE YOUNG (1938)

RONALD ALAN GREEN (1939)

DENIS ETHELBERT O'NEILL JOHNSON (1939) – 22 July 2017

KEITH SAYERS MURRAY (1939) – 14 February 2018

ROBERT HAROLD EMMETT (1940) – 9 March 2017

CHARLES HENRY GIMINGHAM (1941) – 19 June 2018

JOHN MACKIE HITCHEN (1941) – 20 January 2018

ROY MACKENZIE DYE (1942)

WARWICK GRAHAM CANNON (1943) – 3 February 2018

IAN PATON HUNTER† (1943) – 27 January 2018

WILLIAM HERBERT KERSHAW (1943) – 18 March 2018

WILLIAM DENIS OLIVER (1943) – January 2018

DAVID RICHARD WOOD (1943) – 19 April 2018

EDWARD JOHN CULLEN† (1944) – 14 January 2018

MANUEL VICTORINO FERNANDEZ VALIELA (1944) – 31 August 2015

GUY EDWIN KING-REYNOLDS (1944) – 9 March 2018

JOHN HUNTER SEWART† (1944) – 26 October 2017

NATHANIEL SOLOMON (1944) – 30 September 2017

RONALD EDWARD WILLIAMS (1944) – 1 July 2017

DEREK MCCALL (1945) – 8 August 2017

BERTRAM TERENCE MARTIN WILLIS† (1945) – 18 January 2018

CEDRIC HERBERT HASSALL† (1946) – 5 September 2017

LESLIE PERCIVAL MOORE (1946)

KENNETH ADRIAN RILEY (1946) – 17 April 2018

JOHN FRANCIS SPINK (1946)

JOHN NELSON WANKLYN (1946) – January 2005

DAVID WARD CURTIS (1947) – 29 August 2017

MARTIN JOHN GODFREY (1947) – 6 March 2009

DOUGLAS ERNEST LONGDEN (1947) – 30 September 2017

ALAN JAY PIFER (1947)

JOHN REGINALD WOOD (1947) – 24 January 2018

JOHN HEADON AMOS (1948)

ALAN JAMES BONIFACE (1948) – 22 July 2016

ROBERT EDWARD CORBETT (1948) – 3 February 2018

PHILIP HAROLD HAVELOCK (1948) – 7 February 2018

JOHN EDWARD SELLARS (1948) – 5 June 2017

DONALD BISSETT (1949) – 15 September 2017

JOHN DAVID FRODSHAM (1949) – 5 May 2016

PETER SCHOFIELD (1949) – 15 April 2018

WALTHER ERICH RUPERT MARIA SCHWARZACHER† (1949) – 7 March 2018

DAVID MICHAEL GRIFFIN† (1950) – 13 August 2017

JOHN HANDY (1950) – 20 January 2018

LESLIE JOHN HART† (1950) – 10 May 2018

DAVID IAN SMALL HINTON† (1950) – 25 October 2016

JAMES FREDERICK LOWRY KING (1950) – 8 March 2017

RAYMOND WILLIAM GEORGE LONG† (1950) – 12 December 2017

THOMAS GRINDLEY† (1951) – 4 March 2018

MALCOLM SNAITH HUGHES (1951) – 12 April 2018

WILLIAM DAVID JAMIESON (1951) – 19 September 2017

CHRISTOPHER PETER NOWERS (1951) – 17 August 2016

FRANCIS GEORGE DE LONGSDEN WRIGHT (1951) – 29 November 2016

ALAN PATRICK FRANK ALEXANDER (1952) – 10 June 2017

ROBIN THOMAS BISHOP (1952) – 22 September 2017

JOHN FRASER WALTER BUCHANAN (1952) – 22 July 2017

DAVID GARNETT CODLING† (1952) – 24 May 2018

ALEXANDER GEORGE METHVEN† (1952) – 5 April 2016

FRANK DYSON STORRS (1952) – 16 September 2017

RODERICK JAMES TOWNSHEND (1952)

KEITH WALLIS WARREN† (1952) – 16 August 2017

JOHN WEBB CHOWN (1953) – 23 September 2017

ALASTAIR JAMES FULLERTON (1953)

BRIAN JOHN HILL† (1953) – 5 November 2017

ALAN MALCOLM MELROSE (1953)

PETER FLANDERS MORTON (1953) – 29 April 2018

PAUL BRYAN BRUDENELL (1954) – 31 May 2018

DAVID VERNON BUGG (1954) – 4 April 2018

ZORAN MAKSIMOVIC (1954) – 16 April 2016

NEIL PHILLIP SCOTT MURRAY SCOTT (1954) – 24 April 2018

FRED TOWERS† (1954) – 24 December 2017

ALEXANDER DOUGLAS DRYSDALE† (1955) – 16 April 2017

RICHARD JAMES JARVIS (1955) – 29 January 2018

RICHARD MURRAY DE QUETTEVILLE CABOT (1956) – 8 April 2018

GRAHAM JOHN HARDY (1956) – 26 June 2017

BARRY HUXLEY LACEY† (1956) – 20 January 2018

ROBERT COLBY MILTON† (1956) – 27 November 2017

JOHN MICHAEL POLLITT (1957) – 1 August 2017

IAN PALMER–LEWIS (1959)

WILLIAM MICHAEL ROSS (1959) – 14 April 2018

JOHN CHRISTOPHER HUGHES DAVIES (1961) – 26 August 2017

JOHN HOWARD DUNCAN FRASER (1961) – 5 March 2018

ROBERT HUGH BRIDGE (1962) – 14 March 2017

WENDELL ROBERT CARR† (1962) – 21 November 2016

RONALD GEORGE CAVELL† (1962) – 25 November 2017

PETER JAMES BAYLEY† (1963) – 9 April 2018

ROBERT MALCOLM FISK (1956) – 1 March 2018

WILLIAM FIDDES HUNTER (1965)

ANDREW JOHN ORMANROYD (1965) – 15 October 2017

DAVID NIGEL COLLINS (1967) – 8 September 2016

MARK BRINLEY BRYANT† (1971) – 9 August 2017

KEITH DAVIES† (1972) – 14 October 2016

RICHARD JOHN LIGHTOWLERS (1972) – 6 December 2017

PAUL CHRISTOPHER WARNER (1972)

ALAN WILLIAM HODGART (1973) – 31 January 2018

MARTIN CHARLES BRADLY GOUGH (1974) – 7 August 2017

STEPHEN ANDREW FOSTER (1979)

ANDREW JAMES DILWORTH (1980) – December 2017

NOEL PETER SHIELDS (1981)

FRANCES HELEN WILLMOTH (1984) – 2 December 2017

ROBIN JOHN BAGNALL–OAKELEY (1985) – 23 March 2018

LUKE DANIEL RAZZELL (1990) – 17 September 2016