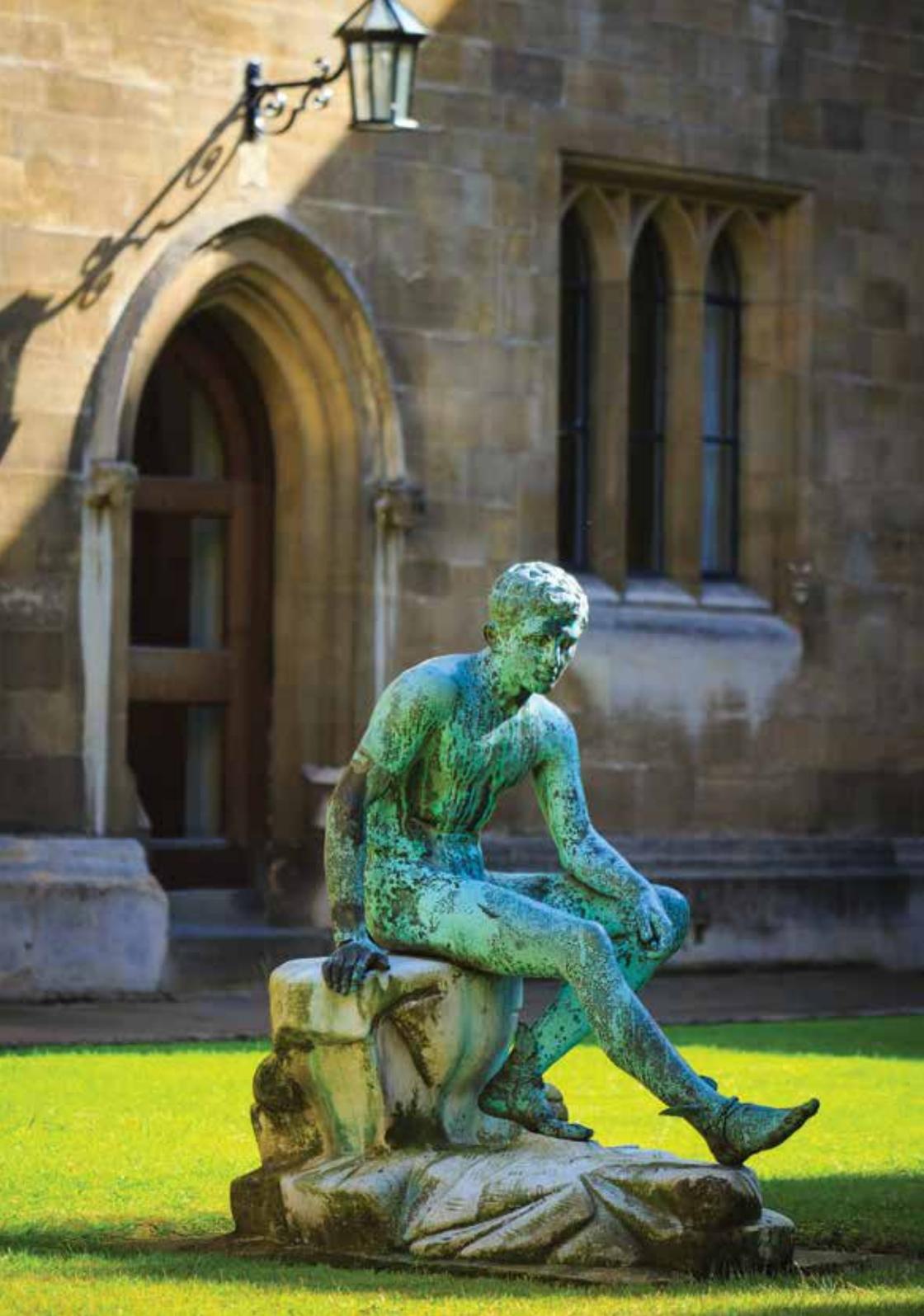




Trinity College Cambridge
Annual Record
2015–2016

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Editorial

It is with some trepidation that I step into Boyd Hilton's shoes and take on the editorship of this journal. He managed the transition to 'glossy' with flair and panache. As historian of the College and sometime holder of many of its working offices, he also brought a knowledge of its past and an understanding of its mysteries that I am unable to match. However, I can promise that your new editor will not want for enthusiasm and will do his best to offer you something which, in defiance of Monty Python, is not completely different.

Unfortunately, his first task this year is to convey sad tidings. Last year, the College lost Sir John Bradfield who played such a large part in raising its fortunes across the second half of the twentieth century. Several memorials to Sir John have now been established. At Darwin College, of which he was a founding patron, ground has been broken to build John Bradfield Court. At the Cambridge Science Park, which he helped to create, there will be a Sir John Bradfield Innovation Centre. In addition, there is a Sir John Bradfield Bursary Fund.

However, this year, we have lost no fewer than three of Sir John's close colleagues during his long years of service. Richard Glauert, first elected in 1951, was Junior Bursar for thirty-six years between 1957 and 1993: running the College's domestic operation and responsible for new buildings from Blue Boar Court to Burrell's Field. Ian Cassels was Trinity's senior Fellow, having been first elected in 1949, and a pillar of its outstanding maths establishment. Gareth Jones (1961) held every major office from steward to Vice-Master and was Acting Master for three months during the interregnum between Sir Michael Atiyah and Amartya Sen. In aggregate, the three of them held Trinity fellowships for 184 years. Their contribution to the College was immense and it is beyond cliché to say that their passing marks the end of an era.

Whether the present era will enjoy similar prosperity and distinction remains to be seen, but the signs are promising. Trinity finished top of the Tompkins Table

in 2016 (yet again) with the best Tripos results in the University. Over 45% of our undergraduates gained first-class degrees. I have to say, however, that this is the last time when I shall be able to re-tell this familiar story. From next year, the University will cease to publish degree classification lists, making inter-collegiate comparisons well-nigh impossible. The official reason given is the need to protect privacy and to ease the anxiety that students feel at having evaluations of them broadcast to the world. However, cynics will suspect that the other colleges voted in favour of the change out of pique at being outclassed on so regular a basis.

It has been a good year, too, for awards and honours recognising the achievements of our Fellows. At the top of the list must sit Nobel Laureate Venki Ramakrishnan as President of the Royal Society. Our mathematicians have continued to be showered with medals and prizes from learned societies around the world: some now have more 'gongs' than Lord Kitchener. Our scientists and humanists have earned honorary degrees and won external fellowships and large funding resources. Amidst so much collective distinction, it is hard to pick out particular individuals. However, one award will be widely seen as especially gratifying.

Physics Professor Val Gibson has received the Athena Prize of the Royal Society for her contribution to diversity. She has given priority to overcoming the notorious 'gender gap' in the sciences both in her own department and in the College. She has helped to set up a summer school in the STEM subjects for women at the College, which will now become an annual feature. Trinity's emphasis on science and mathematics has been responsible in the past for a significant gender imbalance in relation to most other colleges. In the fullness of time, this too should pass into history.

It is now forty years since the College first admitted women Fellows and thirty-eight since female students followed them. Progress has been slow – unconscionably so in the opinion of many – but the last year has brought a notable breakthrough. Professor Catherine Barnard has become Trinity's first woman Senior Tutor and Professor Sachiko Kusukawa its first woman (lay) Dean. Finally, the College may be approaching the condition known elsewhere as civilization. Next year, we shall make the celebration of our female members the core theme of our new edition.

This year, however, they have already made an impact on our sense of collegiate image. As visitors to Hall last Michaelmas will have noticed, the celebrated

Holbein portrait of Henry VIII hanging over the dais was missing: in fact, moved to the Fitzwilliam Museum for an exhibition (and protection from builders then working in the rafters). It was replaced *pro tem.* by the portrait of Elizabeth I taken from the Master's Lodge. However, the shift gave rise to a debate about whether we wished the usual picture most prominently displayed in our most public space to project an image of the College quite so masculine, not to say masculist. By repute, Henry persuaded the painter to 'sex up' the original portrait, turning him full-face (and other things) on to the viewer to convey an impression of testosterone-driven power. Would it not be more fitting in our present age to keep 'Gloriana' on site and consign Henry back to the darker recesses of the Master's Lodge ?

The question raised great passions among the Fellowship. In the end, it was decided that, whatever the gender issue, Elizabeth could not stay in place of our founding patron for the most important of reasons: she had never given the College a brass farthing. If a female Tudor were to replace Henry, it would have to be his other daughter Mary Tudor, a small portrait of whom also hangs in the Hall. Her generosity to Trinity was considerable. However and of course, Mary Tudor is better known as 'Bloody Mary' who lit the fires under English Protestantism in a rather literal way. Would the College wish to be identified with someone commonly seen as a psychopath (as opposed to her father who may have been a psychopath but on whom history's judgement has been more complex)? Her elevation to the role of College icon would certainly give a novel twist to Trinity's celebrations of Bonfire Night.

But, eventually, sleeping dogs were left to lie and Henry returned to his place above the dais. However, the episode served a valuable lesson in pointing to the significance of image – and how Trinity's image may not be very welcoming for large sections of its membership today. In response, it has been decided to commission more portraits and/or drawings of leading women and 'minority' Fellows and alumnae and spread them around the College, if not in Hall, to replace those of heavily-bearded Victorian worthies whose achievements have now faded from memory. In time, the ethos of the College may become a little less like that of an old-fashioned gentleman's club.

The question of image, too, was raised in another way during the year. In his last editorial, my esteemed predecessor pondered: "Trinity's almost complete non-participation in the outpouring of satire, showbiz, and footlightery that

emblemized Cambridge undergraduates in the national mind during the second half of the twentieth century". He contrasted this with Trinity's very active participation in politics over this period including eight members who went on to serve in Mrs Thatcher's cabinets.

His point, however, brought reproof from Jack Thompson who remembered the time in the 1950s, at the start of that half-century, when the Trinity Revue had been a highlight of the undergraduate calendar and Trinity members had participated in the Cambridge Footlights as well as shows staged elsewhere, including the Edinburgh Festival. Several of those shows were recorded on vinyl and particularly prominent thespians, besides Jack himself, were the brothers Julian and Adrian Slade: the former distinguished for writing the long-running musical *Salad Days*; and the latter for introducing Peter Cook to the Footlights, of which he was president at the time. In memory of those days, we include in the Features section the lyrics to one of the songs sung at the 1959 rendition of the Trinity Revue. Boyd may stand reprov'd, but he is not entirely without vindication. Adrian Slade gave up the stage for the hustings and is best known subsequently as the last Chairman of the 'old' Liberal Party before it merged with the SDP.

Also, after the liveliness of the 1950s, whatever did happen to Trinity 'footlightery'? I suspect that some answer might be found in the report of the Dryden Society later in these pages. The report indicates how far Trinity talents are concentrated behind the stage: producing, facilitating and directing projects across a broad terrain rather than, necessarily, performing in them. In my undergraduate days in the 1960s, two leading lights of student theatre and entertainment were Sean Hardie and Dennis Marks: the first went on to become the BBC producer of *Not the Nine O'clock News* and *The Rory Bremner Show*; the second, the Director General of the English National Opera.

Elsewhere, our Features section stretches across the great range of interests and expertise possessed by Trinity's Fellows. Current Steward and Chair of the Wine Committee, as well as Professor of Materials Science, Stephen Elliott discusses the coming together of his two fascinations in the subject of glass. For non-scientists such as myself, who rate a glass largely for what they can put in it, his essay is revelatory. Transparency may clearly be not everything that it appears. Graham Chinner takes us back to a time when Trinity's Great Court clock (albeit not the same clock as at present) played an important role

in the history of chronometry. He also reminds us that bitter feuding between scientific collaborators is not a product of the modern age. Joe Moshenska returns to the seventeenth century to look at an extraordinary character – sometime pirate, poet, scientist, diarist and lover – whose biography he has just published. Here, we see our hero as cook and recipe collector: *The Great British Bake-Off* represents nothing very new under the sun.

Few of us may have known that for the last five years we have had among us a star of one of the most iconic British films of the post-war era. Dominic Lieven reminisces of his days as a three year-old when he played ‘the blond boy’ in *A Town Like Alice*. Whether this could have been the start of a truly great film career we shall never know – since he ruined his chances by turning corpulent on the chocolates fed him by the delightful hand of Virginia McKenna. More directly, he considers the travails of his most recent brush with the world of film and TV as historical advisor to the BBC’s series *War and Peace*: never have the shape of hair-styles and the stamp of brass buttons assumed such overwhelming importance. Intellectuals may continue to debate the relationship between history and literature but, in the age of the TV mini-series, truth (like comedy) may lie most in the way that you tell it.

Finally, Boyd Hilton gives us more benefit from his trawling of the archives to write the College history. In this case he offers a stirring story, both heroic and tragic, that takes us from the Magpie and Stump Debating Society to a firing squad in much-Troubled Ireland via the Boer War and the Great War and a novel that changed the politics of its own times. Erskine Childers was, in every sense, a most remarkable man and his voyage of self-discovery (albeit self-destruction) would surely have made the subject of a great film many years ago – had he not challenged practically every authority that he encountered.

As a year, 2016 has had its pains and its problems. However, for Trinity it has also had its pleasures with resources increasing and academic prowess deepening. Next year, too, we shall look forward to serving under a new University Vice-Chancellor, Stephen Toope, who took his Ph.D. at Trinity in the late 1980s. Until then, I bid you farewell and, as you are likely to receive this in the closing days of 2016, wish you a very Happy New Year.

David Washbrook (2008)





COMMEMORATION

CHAPEL ADDRESS

THE HEALTH OF THE COLLEGE

THE MASTER'S RESPONSE ON BEHALF
OF THE COLLEGE





Commemoration



On benefits and benefactions: Chapel Address in Commemoration of Benefactors by Catherine Barnard, the Senior Tutor, 11 March 2016

It is, you might think, an odd choice at this particular point in our nation's politics to ask for an address on the theme of benefactors from me, a lawyer – of all professions. For those in my narrow trade of EU law, all talk of benefactors has been about how the UK has been giving so much in benefits to help our fellow Europeans citizens. Four-year freezes, seven-year tapering and even the emergency brake have been the dominant topics of debate. Please, dear benefactors, banish all such thoughts of restrictions on benefits from your minds...

I have had to do the same while preparing for this talk. And it has been a wonderful release to turn away from the transient concerns of the referendum campaign. I have relished the opportunity to think in a more lateral fashion of the benefits which accrue to all of us who share in the life and work of this remarkable institution, Trinity College.

I am speaking to you as the year-old Senior Tutor of the College. For most people this post is a mystery. To the students I sign letters, and to the fellows I sign contracts. In fact, the job combines head teacher, chief executive and dogsbody. I am learning through doing. But some things have struck me forcefully since taking on the role.

The first is the extent to which the College has benefitted from the extraordinary generosity of our benefactors, from Henry VIII onwards. While Henry VIII may not have been a model husband, his vision for creating the best and most

successful College was ambitious and far-sighted. I hope that, as he looks down on us now, he has a sense of pride in founding not only the most successful but also the most generous college in Cambridge. For I have been struck by just how generous the college is to other colleges and to other parts of the university. This is a recognition that our strength lies in being part of the most successful university in the world. The university needs Trinity but Trinity needs to be part of a successful university.

One of the unexpected things that I have enjoyed about the senior tutor's position is the quirky things that cross my desk. You may have heard that for three days in August 2014 the College was converted into a field hospital and the *Man Who Knew Infinity* was filmed here. This is the extraordinary story of the exceptional Indian mathematician, Ramanujan, who found a soulmate in Trinity fellow, GH Hardy, who nurtured and supported Ramanujan's talent during the First World War. Dev Patel played Ramanujan, Jeremy Irons Hardy. Hollywood met Trinity – quite a sight. And the film-makers have made a donation to the college to support an Indian studentship. So please go and see it.

Another perk of the job is to judge the Charles Grant Tennant prize for light or humorous verse on a topical subject. This involves a good dinner, a reading of the entries submitted, and then a less than learned discussion of each one to decide who should win the prize. Charles Grant Tennant himself graduated in 1904. He was commissioned into the Seaforth Highlanders in 1914. On 9th May 1915 he was killed in action at Aubers Ridge, leading his platoon in a charge from which only three survived. In his will Tennant left Trinity “the sum of £350 to be invested, and the interest thereon to be devoted to an annual prize to be awarded to the writer of the best copy of light verse”.

This year's field was led by some excellent verse on the subject of Brexit. One of the pieces was entitled 'A ballad for Brexit' which narrated the story of how, following Brexit, the UK, led by a flaxen-haired charmer, pulled up the drawbridge and ousted anything foreign:

Let's wall ourselves away
Wouldn't that be merry?
You know we all think
That foreigners are smelly
The ballad then described how the UK turned in on itself,
with the North fighting the South:

They met at Whitby and fought on the beaches
Alan Bennett wrote and performed battle speeches.
A really dour, underwhelming war cry
Flat vowels reverberating up to the sky

All of this, one hundred years after Charles Grant Tenant gave his life to save this country from the tyranny of a dominant power.

I was reflecting on this as I sat at the back of a cold, damp church in Peterborough on Saturday evening listening to a mass in Lithuanian. Part of my day job is to be Professor of EU law and I have been given funding to research a project entitled 'Honeypot Britain?'. This examines whether benefits are really the pull factor bringing migrant workers to the UK. So, while my scientific colleagues are off to exotic locations such as Hawaii and the Bahamas, the researchers on the Honeypot project and I are spending a lot of time hanging out in Peterborough, Spalding and Boston trying to talk to migrant workers. Some of them are deeply suspicious and reluctant to talk. They know that some British people resent their presence, and resent the fact they are 'taking British jobs', and 'taking their benefits'.

The stories migrants tell us are in fact very different: they are here for work. Many migrants do not know about the benefits they are entitled to. A lot feel they do not deserve benefits, they want to stand on their own feet, and so they don't claim what they are entitled to. And that was the message the rather reticent Lithuanians gave us last Saturday in the cold in Peterborough: they are here for work. The pay is better and so is the quality of life.

Yet the Prime Minister, David Cameron, tried to address the concerns expressed by British people about 'honeypot Britain' in his new settlement negotiation last month. He got an emergency brake on in-work benefits and restrictions on the exportability of child benefit. And this enabled him to say that he could campaign for the remain side.

But this new settlement makes me feel uncomfortable. As a country we see ourselves as generous. Britain is a significant contributor to global aid. Earlier this year, the UK became the first country in the G7 to honour its commitment to ringfencing 0.7 per cent of gross national income for foreign aid (about £12 billion). Yet David Cameron's deal on limiting the amount of child benefit which can be exported involves saving a few *million*.

Some of the world's poor are clearly more unequal than others.

We give for a number of reasons: to support a cause we believe in, to help those in need, to fulfil a religious duty, to give something back, to help others. Sometimes we get a tangible benefit for ourselves. Often we do not – other than the warm feeling of having done the right thing. Generosity of spirit has characterised Britain, it has characterised Trinity and it has characterised our donors at Trinity. Monetary benefaction helps to bring social and academic diversity to Trinity but is most effective when combined with generosity of spirit and ideas. There are lots of examples from the now well publicised story of Hardy and Ramanujan to Terri-Leigh's excellent Social Diversity initiative and the BME conference earlier this year. Lots of people are genuinely committed to the college and give huge amounts of their time to it. May I encourage you to think of this and may your generosity to continue, whether the UK remains in or leaves the EU.



Dr Fiona Godlee (1983) proposed the Health of the College at the Commemoration Feast

Master, Fellows, Scholars, Distinguished guests I'm deeply honoured to have been asked to propose a toast to the College.

I and my three siblings all studied medicine, and we all did so at Trinity. I don't know if that's unique in the history of the College. I suspect it may be.

My siblings became GPs and worked for their entire professional lives within the NHS. I took a slightly different route. I trained in hospital medicine, then became a medical editor and am now editor in chief of The BMJ.

Why medicine? Our father was a doctor, from a long line of doctors and scientists, including his great great grandfather Joseph Jackson Lister, inventor of the achromatic lens which transformed microscopy, and JJL's son Joseph Lister, pioneer of antisepsis which transformed surgical practice.

Whether because of this family background, or from some natural inclination, a doctor it was all I ever wanted to be.

Why Trinity? Well, as my older brother Rickman stoutly maintains, “Trinity is the biggest and the best.” Indeed when I told him I had been asked to propose the toast at the Commemoration Feast, his advice was simply to say “Trinity Biggest and Best” and sit down.

Perhaps that is indeed all I need to say. Trinity is certainly the biggest of the colleges – Oxford and Cambridge combined – and if our guests will forgive me such unbridled complacency, it is in my view unquestionably the best.

I came up to Cambridge as a clinical student in 1983, having done my first medical degree in London. So my memories of Trinity are coloured by comparison with student life in London. There was the luxury of deep baths and endless hot water in Whewells Court. In my student flat in London, the bath was in the kitchen, so apart from having limited hot water, one had first to do the washing up. Other abiding memories of Trinity include sitting in the hush of the library with sunshine outside, apparently revising for my finals but actually reading *Middlemarch*. And playing daily cat and mouse with the porters as I parked my battered VW Beetle on the college forecourt.

But I remember too a wider sense of wonder and gratitude, at being part of this great place, with its extraordinary breadth and beauty.

Breadth in the range of its academic disciplines: one can find here scientists, historians, musicians, engineers, mathematicians, philosophers, lawyers and linguists, and all things in between. The current and most recent occupants of the Master’s Lodge alone reflect this breadth of human endeavour: Amartya Sen, economist and champion of social justice; Martin Rees, astrophysicist, cosmologist, and a hero of mine for using his influential voice to highlight the reality and dangers of climate change; and Greg Winter, molecular biologist, pioneer of therapeutic antibodies which are transforming the lives of people with rheumatoid arthritis and offering hope for people with cancer.

As for its beauty, I am always brought to a halt on walking into College from Trinity Street, or emerging from Hall onto the steps of Great Court. I hope the day won’t come for any of us when we will take such grandeur for granted.

The College motto is *Virtus vera nobilitas*: which my school girl Latin translates as “virtue is true nobility.” I don’t think I knew this when I was here as a student. I discovered it while pondering what to say tonight. When the College was founded 470 years ago, people lived within steep and strict social hierarchies,

which were dictated by birth and were largely inescapable. The College motto – virtue is true nobility – would then have stood out bravely against that rigid status quo, declaring instead allegiance to academic excellence and meritocracy.

So it still stands today. But virtue is perhaps too old fashioned a word. Of possible synonyms, I suggest integrity, as speaking most urgently to the challenges we face in this rapidly changing world.

In the film *Calvary*, the priest Father Lavelle, played by Brenden Gleeson, says damningly to a fellow priest whose weakness of character has become gradually apparent: “You have no integrity, and that’s the worst thing I could say about anybody.”

To me integrity means doing the right thing, especially when this is the hard thing; doing the right thing, even when no one else is looking. It is for each of us perhaps our most precious possession. Once lost, it is almost impossible to regain.

Having integrity doesn’t mean you won’t make mistakes. We are human and mistakes will be made. But scientists with integrity correct the record; clinicians with integrity apologise and do whatever possible to put things right. In both cases integrity means learning and making change.

It seems to me that we spend our early lives working out who we are, what our values are, what the principles are to which we hold fast and which give us our wholeness, our integrity as human beings. Over time, we build our social, intellectual, and if we are fortunate, our financial capital. But this capital is not built for its own sake, to be hoarded and kept to ourselves. It is to be spent for the greater good. And crucially we each choose what to spend it on.

Someone once told me that happiness is in finding something you love and doing it well and with passion. So for me in my work, I think of *The BMJ* as more than a medical journal, I see it as an active agent for change. We do what medical journals do – publish clinical research, reviews, commentary, journalism. But we also seek to change the culture of medical science and practice.

One of my predecessors Hugh Clegg said “A subject that needs reform should be put before the public until the public demands reform.” These are words that give me courage, as there is much in my area of work that needs reform. So at *The BMJ* we constantly revise our editorial policies to push science and practice to be more transparent, freer from bias and financial conflicts of interest, to avoid the waste and harm of too much medicine, and to work with patients as partners at the centre of their care. Finally, we live in a country that suffers from one of

the widest and still widening gaps between rich and poor. So it seems right to me for The BMJ to champion the NHS: this country's unique and precious asset for social justice.

It is our great good fortune to be here at this time, in such beautiful surroundings and able to enjoy such rich and varied company. You don't need me to say, make the most of it. But I'll say it anyway. Make the most of it. And while you are doing that, don't forget to look up at the beauty all around you, or to look out at the wider world.

And so let us raise our glasses in a toast – to the continued health of this the biggest and best of Colleges.



Response on behalf of the College by the Master, Sir Gregory Winter

I would first like to welcome Dr Fiona Godlee, our Speaker today. Fiona came up to Trinity in 1983 to study Medicine, and trained as a general physician in Cambridge and London. Medicine and Trinity seem to run in the Godlee family. Her ancestors include Mary Lister, the sister of Lord Lister, the surgeon who introduced new principles of cleanliness that transformed surgical practice in the late 1800s. Mary Lister married a Godlee, this all foreshadowed in the saying “Cleanliness is next to Godliness”.

Fiona's father was a cancer specialist, and her three siblings had already beaten a path to Trinity to study Medicine. Soon after qualifying, Fiona struck out in an entirely different direction, joined the British Medical Journal, and later became its Editor in Chief. From there, I quote from the internet, “she has launched crusade after crusade, many of them stirring up storms of controversy”. This certainly seems better than “stirring up apathy”, to quote from Willie Whitelaw, a former Trinity man and Tory politician. Fiona has attacked US dietary guidelines as based on poor science and biased by commercial interests; she has slammed governments for spending billions on a flu medication that apparently doesn't work; and she has savaged our Health Minister Mr Jeremy Hunt over

his representation or perhaps misrepresentation that higher weekend deaths in the NHS are due to poor staffing. With some unease at what she may say, and in the hope that Trinity doesn't find itself a target of her invective, I invite her to the microphone.

Godlee Speech

I would like to thank Fiona for proposing the health of the College and for providing such a fearless model for our medics. Earlier this evening Professor Catherine Barnard, our Senior Tutor, gave an address at the service for Commemoration of Benefactors. I think this is the first time that we have had women speakers for both the Address in Chapel and the Toast to the College; and it isn't even 50 years since we admitted the first woman undergraduate or Fellow. This shows just how rapidly the winds of change have been blowing through Trinity.

This year in our Commemoration Service, we acknowledged the generosity of both the quick and the dead. In particular we acknowledged the gifts of Mr Graham Keniston-Cooper whom we elected last year as a Fellow Benefactor of the College. Graham was the first Fellow Benefactor to be admitted, and gamely acted as a guinea pig for the Admissions ceremony in Chapel today. Graham came to Trinity in 1977 to read mathematics and then got involved in the private equity business, and into the position that he could make gifts. As well as making gifts directly to the University of Cambridge, Graham endowed a Research Fellowship in Mathematics in the College in 2009. Graham is here tonight with his wife Nicole as guests of the College, and many thanks indeed to both of you for your generosity.

Like Fellows, our Fellow Benefactors receive certain privileges, most especially the privilege of walking on the grass. Recently it has proved a useful distraction for both our students and our Senior Bursar, the students making requests under the Freedom of Information Act, and Mr Landman trawling our records for information on the penalties for those caught *in flagrante ambulando*.

Last year we also elected Mr Bruce Dunlevie and Lord Wolfson of Sunningdale as Fellow Benefactors, but they were unable to attend the Commemoration Service today to be admitted. Most unfortunately Lord Wolfson damaged his knee shortly after being assured that he would be entitled to walk on the grass.

And now I shall turn briefly from the quick to the dead. The Service in Chapel, as usual, commemorated those benefactors who are departed, including King Edward II, King Henry VIII, Queen Mary I, Queen Elizabeth I and this year ending with the late Mary, Duchess of Roxburghe.

The Duchess was born in 1915, and had been one of the great beauties of her age, society balls, married young, followed husband to Palestine during the second world war, recreated high society in the Middle East, was divorced after the war and became best known for resisting the attempts of her husband to evict her from the family home. She died in 2014 and bequeathed the College – most astonishingly – a library of thousands of books. It emerged that her father (Robert Crewe-Milnes) and grandfather (Richard Monckton Milnes) had assembled the library; both were Trinity men and two of the greatest book collectors of the nineteenth century.

The library includes presentation copies of most of the great English writers of their time, from Shelley, Wordsworth and Tennyson to Oscar Wilde and Henry James, often with letters from the authors enclosed. More than half of the books are French, charting the history of France through all periods but especially the time of Revolution; this will establish Trinity as a major centre for research in this field. We will make more than two hundred literary and historical manuscripts available to researchers later this year, once cataloguing and conservation work has proceeded.

It is therefore with great pleasure that we welcome the Duchess's nephew, Mr Bamber Gascoigne, and his wife Christina. Bamber is not a Trinity man but from Magdalene College Cambridge, and he used to appear on television, but he is no less welcome for it. The Duchess bequeathed him the huge, decaying, listed and beautiful 16C mansion in which the library had been housed. Unfortunately Bamber and Christina have had to dispose of its contents and treasures to pay for inheritance taxes and for restoration of the building. Treasures include the Goya etchings "The Disasters of War" and we were delighted to hear these may be allocated to Trinity under the HMRC "Acceptance in Lieu" scheme, in which inheritance tax debts can be written off in exchange for the acquisition of objects of national importance. Bamber and Christina, we would like to thank you for putting in a good word for Trinity, we wish you well in your restorations, and we are so glad that you are here to witness the College's appreciation of the marvellous bequest from your aunt.

This evening we welcome another major benefactor Mr Rob Cawthorn and his wife Sue. Rob came up in 1956 to study agriculture when he ran a roulette wheel from his rooms in Trinity and met Sue. After graduating he migrated to the pharmaceutical industry, and transformed the pharmaceutical company Rorer, largely through acquisitions and mergers, culminating in the formation of Rhone-Poulenc-Rorer which he headed as CEO. Now retired Rob and Sue are helping to endow a Professorship in Crop Sciences in the University, and earlier this year they agreed to fund a Trinity Senior Postdoctoral Researcher in Crop Sciences. On behalf of the College thank you both for your generosity.

We also have a few other College guests.

Let me welcome Dr Tony Hulse and his wife Doriel. He has been Chairman, and is currently a committee member of Trinity Medics Association (TMA), one of the professional associations through which we try to keep in touch with our alumni. We are very grateful for the efforts made by the officers of our associations to arrange programmes of events for our alumni and to provide mentoring and informal advice to our students about their prospective careers. Thank you Tony, for serving for more than six years as an officer of TMA.

Now let me welcome Rear Admiral Nigel Guild, who is here with his wife Felicity. Nigel came up in 1968 to read Engineering. His career was in the navy, starting off as a Weapons Engineer Officer, and culminating in the office of Controller of the Navy. You may remember the closing refrain in the “First Sea Lords Song” from Gilbert and Sullivan “Stick close to your desks and never go to sea, And you all may be Rulers of the Queen’s Navy”. In best Adrian Mole age 13 ¾ mode, I inspected Nigel’s CV more carefully, and I found that he had served at sea in one aircraft carrier, and two frigates. So much for Gilbert and Sullivan’s advice.

Let me also welcome Graham Simister who is here with his wife Ceiri. Graham came up to Trinity in 1974 to read economics, developed an early expertise in options trading and has made a career in the financial services and of sitting on company boards. One of those boards was that of Brady plc, a company offering trading and risk management solutions, founded by one of our former Title A Fellows, Robert Brady. We are very grateful to Graham and Robert, and indeed several Trinity men, for their free advice, at least so far, in developing our plans for the John Bradfield Centre, our science incubator on the Cambridge Science Park, of which more I hope next year.

Finally the last of our guests are Dr Pierre Carlotti and his wife Isabelle-Eve. Pierre came up to Trinity in 1998 to undertake a PhD in Applied Mathematics and Physics. When he returned to France he was put to work on the roads, as Head of the French Highways Construction Service in Marseille, and has risen to become the Chief Scientist in the Prefecture of the Police of Paris. Last year he was immersed in the neutralization of WW2 bombs, terrorist atrocities and the security for the UN Climate Change Conference. This afternoon Professor Robert Neild mentioned to me that Trinity has produced several very distinguished Frenchmen, and that a Trinity man was once briefly prime minister of France.

That man was William Henry Waddington, who was born in France in 1826 of English parents who, having been successful in business over there, had taken French nationality. After being educated at Rugby and Trinity, where he rowed for the university in the Boat Race in 1849, he returned to France and took up a political career and was so successful that he rose to be Prime Minister for most of 1879 (prime ministers of France came and went rather rapidly then), and subsequently served as French ambassador in London for ten years.

Pierre, we will be following your career with interest, we hope it ends as well as Waddington's, and that in the meantime you can take back to Paris our warmth and friendship for its people, and our solidarity in facing down terrorism.

I would now like to offer some congratulations and thanks.

Congratulations to Sir David MacKay who was knighted in the New Year's Honours List; to Sir Venki Ramakrishnan who was confirmed as President Elect of the Royal Society; to Professor Scott Sloan and Professor Ali Alavi who were elected as Fellows of the Royal Society; to Professor Richard Borcherds who was elected to the National Academy of US Sciences; to Professor Michael Cates who was appointed Lucasian Professorship of Mathematics at Cambridge; and to Mr Eddie Redmayne winner of the Oscar for Best Actor in the Theory of Everything.

Congratulations also to Mr Brian Lowe (Law 1931) in New South Wales, who had his MA conferred – a little later than most Cambridge graduates – at the remarkable age of 102.

Congratulations to Trinity's alumni team for narrowly beating Oriel College in the University Challenge Christmas Special 2015.

Congratulations to Miss Nikki Weckman (Trinity PhD researcher in engineering) who captained the Cambridge University Women's Rugby Team to victory at

the 29th Women's Varsity match at Twickenham. Cambridge won 52-0. My congratulations also to the three Trinity men who have made their way into the Blues rowing squads this year.

Congratulations to the incoming President of Trinity College Students Union Martin Freimuller and team on their election, and thanks to the outgoing Cornelius Roemer and team for their work over the last year. Likewise thanks to the BA Committee President Krishna Sharma and team who remain in position until the end of next term.

Congratulations to the College Choir on their splendid performance this evening in Chapel and in Hall. The Choir has had another excellent year. They performed to many thousands of people across the United States last September. Both of their CDs released last year received nominations for the Gramophone Magazine Choral Disc of the Year. This summer they'll be spending a month touring Hong Kong and Australia, as part of the Musica Viva International Concert Series.

Congratulations to our students who last summer scored 41.0% firsts and placed Trinity at the top of the Tompkins Table for yet another year. Sadly there are moves afoot in the University and other Colleges to keep the class lists secret, allegedly in case an individual with a poor class should feel embarrassed. Among other consequences, the effect will be to strangle the efforts of Mr Tompkins, a former Trinity mathematician, to produce his Table. We will do our best to resist these changes, but I am not hopeful, as we are completely outnumbered. Nevertheless, although the Table may cease to exist, its abolition at this point would cement in perpetuity the notion that Trinity is the best College.

Which brings me to Trexit. In previous years I have drawn attention to the misuse of FOI requests by student journalists. This year there has been a development in a different direction, particularly in the online newspaper "The Porter's Log" (www.theporterslog.com).

In early March it had an article headed "Trexit: Trinity to hold referendum on leaving Cambridge University" from which I will quote the leader of the "Better Off Out" campaign. "We at Trinity have our own culture, our own way of life and our own proud history of achievement. For seven years running, we have been at the top of the Tompkins Table. Independence is the only way to ensure that we, as an educational superpower, are no longer dragged down by the rest of the University." Other quotes from the article include the Senior Tutor "We are fed up of having to bail out other Colleges because we have made better economic

choices over the centuries” and the JCR President “We’re tired of free movement between colleges. Students come under the premise of a supervision, but then stay to use our buttery and bar. This kind of benefit tourism must be stopped.”

I would like to say to whoever wrote this article, “Congratulations !”, but the articles are anonymous, and probably for good reason. The author has made his/her point in a much more amusing and fundamental way about Trinity’s relationship with the University and other Colleges... and about the Brexit referendum, than he/she could possibly have achieved by earnest abuse of the FOI Act. So as the real Master of Trinity, I am quite willing to put up with telephone calls from other Masters, uncertainly wondering whether there is a fire behind the smoke. And I can reply, enigmatically, “I couldn’t possibly say...”

That is the end of my speech and the end of the dinner. I hope you have enjoyed it and that we can thank the Catering Manager and the Manciple, and the chefs and the serving staff, for preparing and serving such a splendid feast.



ALUMNI RELATIONS & DEVELOPMENT

ALUMNI RELATIONS AND ASSOCIATIONS

ANNUAL GATHERINGS

ALUMNI ACHIEVEMENTS





Alumni Relations & Development



Michael Banner, Chair of Alumni Relations & Development

Building on last year's success, I'm pleased to report that it has been another positive year for the Alumni Relations & Development Office. We continued our ambitious programme of overseas and domestic travel, and to expand and refine our mission. Indeed, Fellows and staff have met with alumni in Hong Kong, Singapore, California, New York, Beijing, Shanghai, and Paris. In College, we welcomed back 837 alumni from matric years 1953–57, 1958–1961, 1975–1977, and 1994–1995 for their Annual Gatherings.

In July, 375 alumni and their children enjoyed an A.A. Milne Adventure for Family Day, while this year's TrinTalk: Art & Fear explored what it means to be an artist, and the different degrees of fear the profession inspires, and featured talks by Ansy Boothroyd (1983), Paul Lazenby (1961), Beate Perrey (1991), Hannah Barry (2001), and Eugenio Polgovsky (e2015). To celebrate the 40th anniversary of post-graduate women being admitted to College, Trinity marked the occasion with a special 'Women @ 40' lunch and panel discussion in College, which was well-received by alumni, students and Fellows, and attracted many of the pioneering original 1976 cohort.

Our Alumni Associations continue to play an active role in College, London and abroad, with mentoring programmes in good order with the lawyers and engineers. The Trinity Business & City Association has been particularly active this year, having launched its monthly 'Distinguished Speaker Series'. Alumni have enjoyed talks in London by numerous industry leaders, including Lord Blackwell (1970), Nicholas Coleridge CBE (1976), Gavin Patterson (Chief Executive of BT), and Archie Norman (former CEO of ASDA).

Alumni communications emphasise the vibrancy of our constituency, with *The Fountain*, *Annual Report*, and *Annual Fund Brochure* being the key publications in the calendar. Our e-newsletter, in particular, has grown in popularity – many thanks for sending in your contributions and updates. In the coming year we hope you will connect with the College with as much enthusiasm as you did this year, particularly on our social media channels ([@Trinity1546](http://www.facebook.com/trinitycollegecambridge) / [Linkedin page](#)) and new website: <http://alumni.trin.cam.ac.uk>

We likewise enjoyed a successful year of fundraising, including £1.33m from the Annual Fund alone. Indeed, 64% of alumni who were called during the fortnightly campaign made a gift, with 299 becoming members of our new giving programme: the 1546 Society. An impressive total of 871 members now are part of the 1546 Society, which recognises a monthly gift of £15.46 or £185.52 per year. Support for the Clock Tower Circle – which recognises a yearly gift of £1,000 and above – has been similarly strong, with membership growing to 238 (168 in 2015) alumni from 15 countries. In total, we raised £3.5m (£3.1m in 2015) - vital income which the College uses to support student support, teaching, access and research. Equally pleasing was the increase in our total alumni giving percentage, which rose from 11% to 13% this year – our greatest ever level of support.

In my capacity as Chair of Alumni Relations & Development, I have been particularly active in meeting with alumni at events both in College and around the world. On the staffing front, we are delighted to welcome Amy Trotter, who joins us from the University of Oxford, as our new Executive Director of Alumni Relations & Development, following the departure of Jennifer Garner, who returned to work in the US at the University of Denver. Declan Hamilton has settled into the newly created post of Alumni Relations Manager, while Jo Raines will be joining us in the New Year as Deputy Director of Development.

We are looking forward to another positive year and will continue to make explicit why philanthropic giving is essential to secure the longevity and success of the College. We hope that you will continue to take the time to connect with the College wherever you are and to support it however you can.

Alumni Associations



Trinity Business and City Association Ihab Makar (1979)

2016 was a successful year in the transformation of TBCA to its new model, defined by broadening its appeal to all those in the business world, and enriching the offer, with a major increase both in quantity and quality of events for alumni. The groundwork had been laid in 2015 by the new committee, and was brought to fruition in 2016.

Notable was the launch of the Distinguished Speaker Series, a monthly programme in which renowned speakers described from a personal perspective how they coped with challenges and issues they faced. The series has been well received by alumni, with positive feedback, and all events near or at full capacity. Speakers included: Lord Blackwell (1970) Chairman of Lloyds Banking Group plc; Nicholas Coleridge CBE (1976), Chief Executive of Conde Nast; Archie Norman, former Chairman of Asda; Gavin Patterson, Chief Executive of British Telecom, and David Abraham, Chief Executive of Channel Four television to round off the year. The Committee is grateful to the Master for his involvement in the series.

The home of the series is Gresham College in Holborn, a college as old as Trinity and birthplace of the Royal Society. It was founded by Thomas Gresham to educate Londoners into new mercantile and City finance being developed nearby, therefore the College is an appropriate venue for our Association.

Alongside the Distinguished Speaker Series there have been social events, the most appreciated of which is the annual Festive Drinks at the apartment of Sir Paul Judge (1968) offering a spectacular view of London. Both the Speaker Series and the social events act as a platform for networking – a core goal of the Association.



The First & Third Trinity Association David Jones (1958)

The Association Biennial Dinner held in College in September, saw a record attendance of over 160 alumni and partners. Let us hope that the dinner in 2018 will be as successful. This reflected the encouraging increase in membership this last year, which now stands at just under 250. The dinner was honoured by the presence of the previous President, Peter Brandt (1951). The esteem in which he is held by the Association was demonstrated by an enthusiastic ovation during the after-dinner speeches.

It is pleasing to see so many alumni supporting the Club Captains in the day to day running of the College boat club, particularly by helping with coaching. Neil Talbott (1999) and Tom Rose (1998) have contributed significantly in this respect, along with many others. A very active Steering Committee of alumni and current Captains is responsible for generating a forward-looking development scenario. This has included the further fine-tuning of an equipment management strategy. A new eight, as the Women's first VIII, was purchased this year, and named "Queen Elizabeth 1" by Emily Booker (1992), in a ceremony under the Wren Library just before the Dinner. Emily distinguished herself by starting at Trinity as a novice, proceeding rapidly to the Cambridge women's squad, a GB trialist and then a Commonwealth gold! Another alumna, Fran Rawlins (2005) rowing for Leander, won the Women's Intermediate 1 Quads in the Head of the River, and Elite Quads at Women's Henley. She also competed in the Princess Grace Challenge Cup at Henley Royal Regatta, losing to the GB Under-23 crew in the semi-final. Considerable numbers of alumni fortunate enough to be still in Cambridge, have played an active part in the Cambridge Town bumps, either rowing, coxing, coaching or marshalling. All of the foregoing illustrates well the lasting effect that an enjoyable rowing experience has upon Trinity men and women, and the manner in which it helps in shaping one's life. The incoming Overall Captain and Ladies Captain for 2016–2017, Isabel Vallina Garcia, stressed this point in her speech at the dinner and urged all First and Third members, current students and alumni alike, to make a particular effort this year to further raise the standards of rowing.

The annual Saturday Henley Royal Regatta drinks event took place again in 2016 and provided an opportunity for Association members to meet in a most

convivial atmosphere. The regular First Tuesday of the month meetings at “Ye Olde Cheshire Cheese” in Fleet Street, are proving increasingly popular and are highly recommended.

The Association is managed most effectively by Dan Darley (1994), and Rich Dewire (1996), to whom we all owe a vote of thanks. Please contact the Association through the website www.firstandthirdassoc.org or assoc@firstandthird.org



Trinity Law Association Hardeep Nahal (1987)

I have this year been asked by the Committee to assume the role of Chairman of the Trinity Law Association, in succession to His Honour Judge Peter Rook QC (1967) who chaired the Association with great care, warmth and humour over 4 years. I would like to take this opportunity to extend my thanks, and those of other members of the Association, to Peter for his efforts and for hosting us so generously at the Old Bailey on several occasions. He left the Association in very good shape, with over 400 members.

On 19 November 2015, Peter hosted his last Association event as Chair at an event for members and students in Court No 1 at the Old Bailey. Professor John Spencer QC (Professor Emeritus of Criminal Law at Cambridge), gave an excellent talk on the Old Bailey’s contribution to the adversarial system, which was very well received. There was a good attendance including over 50 alumni and guests, as well as a large contingent of current students and several other Bailey judges – and copious refreshments were provided in the Great Hall following the lecture.

Professor Spencer also wrote a short obituary (published in our July 2016 Newsletter), of Professor Gareth Jones, who passed away earlier this year. Gareth’s memorial service was held in College on 29 October 2016. In giving one of the addresses at that service, Trinity fellow Sarah Worthington, one of Gareth’s successors as Downing Professor of the Laws of England, likened his ground-breaking work on the Law of Restitution to Newton’s fundamental scientific discoveries. Other speakers attested to his deep love of teaching. I was fortunate enough to have been supervised by Gareth in Equity, and he will be greatly missed.

As Peter noted in his last report, the Trinity Legal Ladies are now holding their own regular events and have also been instrumental in devising the panel discussion for this autumn's TLA event at Shepherd and Wedderburn LLP in the City on 10 November 2016. The theme for the panel discussion, chaired by (Mrs Justice), Sue Carr (1983), was "Gender Diversity in the Legal Professions". The alumnae panellists, drawn from different branches of the profession and levels of seniority, reflected on what has and has not been achieved since they were at Trinity, and discussed some of the latest initiatives and issues around diversity in the legal world. Together with the panel, the alumni and student audience explored such questions as: "Why has only one woman reached our Supreme Court, and does it matter?", "How are and how should firms and chambers be dealing with the challenge of gender targets (including the gender pay gap)?", and "How can we achieve the right work/life balance for working parents and carers (of whatever gender and relationship status), and what are firms and chambers doing to facilitate this?". The event was well attended and the venue was generously provided by Guy Harvey (1969), of Shepherd and Wedderburn LLP.

As well as providing a forum for alumni to get together and catch up in an informal environment, the Association provides mentoring for students and others, and this remains a vital part of its function. Rachel Avery (1998) of Devereux Chambers has continued her sterling work in co-ordinating our mentoring scheme.

Peter mentioned in his last report the importance, attractions and rewarding nature of publicly funded work (crime and family) and I am delighted in that connection that Angela Rafferty QC (1989), a criminal silk, has joined our Committee and that Trinity fellow Jo Miles (e1999), the Deputy Director of a new research centre in the faculty, Cambridge Family Law, continues to provide us with such staunch support. The Committee has also been joined this year by Andrew Walker QC (1987), of Maitland Chambers, Sara Masters QC (1988), of 20 Essex Street, Sam Littlejohns (2009), of 1 Hare Court, Fionnuala Woods (2000), of Birketts LLP, and Sarah Inge Parker (1984), Law alumna, now consulting in the energy sustainability field.

We are due to hold our next dinner in Hall at Trinity on 11 March 2017. Baroness Hale was our guest speaker on the last such occasion, in February 2015, and we are delighted that our guest speaker in March is due to be Lord Lester of Herne Hill, who will doubtless have important and powerful things to say in these

constitutionally turbulent times. I look forward to seeing as many members as possible – and their guests – on that occasion.

Finally, I write this a week or so after the High Court upheld a challenge to the Government’s decision to invoke Article 50 of the Treaty on European Union without an Act of Parliament – just as had been foreshadowed by Philip Allott (who supervised me in Constitutional and International Law), in his piece in The Guardian on 30 June 2016 headed “Forget the politics – Brexit may be unlawful”, which was reproduced in our July 2016 Newsletter. We now await the next instalment from the Supreme Court, which is expected to hear the Government’s appeal *en banc* in early December...



Trinity Medics Association By Christopher King (2007)

The fourth TMA Dinner was held with great success in College in March. Before dinner we welcomed Larry Benjamin, a renowned ophthalmic surgeon who has served as Chair of the Education Committee and Senior Vice-President of the Royal College of Ophthalmologists. Larry gave a fascinating and insightful talk on his work as a trustee of Orbis, the charity behind the flying eye hospital, discussing the challenges of delivering first-rate ophthalmic care and teaching in the developing world. Dinner was taken in Hall with an excellent attendance from current students and alumni from a wide range of year groups.

Moving forwards, the committee is working with the alumni relations office to revamp our programme and events to encourage involvement from as many members as possible.



Trinity Engineering Association John Yeomans (1975)

Our prime objective remains as fostering closer ties between alumni and students to bring ‘real world’ engineering experience to the next generation of Trinity engineers. Informal assistance in career choice is one of the main ways we achieve that goal.

This year the content and format of our meetings broadened. Our goals were to involve more younger alumni; to give students the benefit of the experience of recent career experiences of those younger alumni; and additionally to increase the range of alumni who could attend our meetings.

All three goals were achieved – and we want to maintain that going forwards. Our February meeting was on a Saturday rather than a weekday: many alumni are constrained from travelling to Cambridge on a weekday evening. The topic was entrepreneurship: even a few years back, starting your own business was rarely seen as an option for graduates entering work. How times have changed. The format was a panel. It was also a joint event with TBCS, our first joint event. We plan many more. Christie Marrian chaired the panel, which comprised TEA and TBCS members all engaged in entrepreneurship, including policy and investing roles as well as active entrepreneurs. Any top messages? Many, but the main one for students is whether or not you get a bit of experience first somewhere else, and provided you’ve got the stomach for it, then the time to get into entrepreneurship is early in life. How risky is it? These days there are many career risks in corporate life: controlling your own destiny may be less risky and more fulfilling.

Our October event involved another panel, of younger alumni, discussing the whys and wherefores of their various career paths. The range and diversity of choices that lead quickly from an Engineering degree or PhD became very apparent. So also did other themes. For example, most had faced the personal choice between roles such as consultancy, which offer a great deal of variety in problem solving but not always a deep sense of being involved all the way through to the end of a problem, and applied research, with a narrower specialism but the satisfaction of seeing something to conclusion. In answer to the question of what skills other than engineering the panel had needed to develop, crisp communication skills consistently came out as number one.

Thanks to all panellists who took the time to come back and put something back, and to recent alumna Amanda Talhat for organising it. Another win was the extent to which the networking continued after the event in the college bar.

Attendance is holding up or slightly increasing, with around 50 attendees more or less equally split between alumni and students. And the other elements of our meetings – ‘speed-dating’ mentoring, drinks and informal dinners where alumni and students can interact – remain core to our meetings.

This year we have also built our links with the Trinity (student), Engineering Society. I was delighted to invited along to their first meeting, and look forward to returning soon to talk about satellites. And we continue to build our links with other Trinity Alumni groups – more next year.

Finally may I thank Peter Davidson for chairing the Association from inception to now; to all our mentors for the work they undertake, providing advice on careers, job offers and student placements, and to the Committee members for their time, ideas and assistance.



Trinity Women’s Association Ellie Davies (1999)

Following its launch in 2015, the TWN has continued to grow and develop over the past year, with three very successful events, held in Cambridge and London respectively.

At the end of November 2015, the TWN and TMA joined forces for a lunch in College, followed by a series of talks and a panel discussion the social, professional and cultural challenges facing medics today. Members of both societies mingled over drinks, enjoyed an excellent lunch in the Old Kitchen, before decamping to The Allhusen Room for a fascinating afternoon listening to a panel chaired by Dame Carol Black. Speakers included Trinity alumna Scarlett McNally (1987) (a Consultant Orthopaedic Surgeon and Council Member of the Royal College of Surgeons), and Rebecca Fitzgerald (e2002), Trinity’s Director of Medical Studies, on the challenges and opportunities of academic medicine. The subsequent Q&A was lively, and the event a great success.

On Tuesday 8th March, we celebrated International Women's Day at The Ivy Club in London, with a drinks reception and screening of *Girl Rising*. Speakers from the global not-for-profit partnerships Girls Not Brides and Camfed, including Trinity alumna Lakshmi Sundaram (1997), shared compelling data and moving stories with attendees on the challenges faced by young women across the world, and the multiplier effect of girls' education. The Loft at The Ivy was full to capacity, with seventy members of the TWN and College (including fellowship, undergraduate and postgraduates), of all ages and experiences, enjoying delicious canapes and sparkling conversation.

In September, the TWN hosted a trip to the Sam Wanamaker Theatre to watch *Two Gentlemen of Verona*. Trinity alumni met for drinks before the performance, and were treated to a talk by Dr Joe Moshenska, Fellow and Lecturer in English at Trinity, who shared his thoughts and insights on the play. TWN members continued to catch up after the show, especially on the unexpected motif of the 1960's music scene!

We are looking forward to next years' TWN gatherings, including our STEM themed event for International Women's Day on March 9th 2017, kindly hosted by the international scientific, technical and medical information firm Elsevier, and an evening of music and poetry in College, with drinks and a dinner, on September 9th. We hope to see as many alumni as possible there.



Trinity College Choir Association Douglas Paine (2000), Chairman

It has been a privilege to take over from Nicholas Yates (1991), as Chairman of the TCCA. Nicholas did a sterling job as one of the founding members of the Association and then steering its path for the next 14 years, and we are fortunate that he continues to play an active role on the Committee.

During the last academic year, the TCCA provided a Choir (of past members of the College Choir), to sing at Annual Gatherings on 19 September 2015 (organised by Richard Brett (1970)), and 8 July 2016 (organised by Andrew Lamb (1994)). On 8 November 2015, the College Choir and members of the Association joined forces under Stephen Layton (Director of Music), to sing Duruflé's *Requiem*.

On 7 December 2015, the Trinity Alumni Carol Service was held at St Sepulchre's in Holborn and, again, sung by a TCCA Choir organised by Tom Dupernex (2000). On 23 January 2016 the TCCA committee, together with Stephen Layton, hosted an outreach day in College for directors of music from a number of schools around the country.

On 27 January 2016 the TCCA held another well-attended London drinks event, this time at the Lord Raglan near St Paul's. Another such event is planned for 26 January 2017 and all TCCA members are most welcome.

Planning is underway for the next TCCA Gathering, which will be held on 1 July 2017 in College. The day will include an Evensong in Chapel followed by dinner in Hall. Further details will be circulated shortly.

Lastly, but certainly not least, it is a pleasure to welcome to the Committee: Lucy Cronin (2007), James Oldfield (2000), Cat Suart (2005) and Mike Waldron (2006). The following members have stepped down, and we are very grateful for their contributions: Ellie Davies (née Major) (1999), Marie-Claire Byrne (née Brookshaw) (1993), Duncan Byrne (1991), and Chris Tortise (Choir volunteer).

Dining Privileges

Members of the College who are Masters of Arts are welcome to dine at the High Table four times a year, and to take wine in the Combination Room after dinner; there is no charge either for dinner or for wine. (Please note that there are likely to be a few occasions each year on which MAs cannot be accommodated in this way – e.g. special dinners or other College entertainments.)

We regret that, for reasons of space, MAs exercising this privilege may not bring guests, except that once a year an MA may apply for permission to bring (and pay for) a guest. The MA privileges described above also apply to all members of the College who hold a Cambridge doctorate, whether or not they are MAs.

If you wish to dine, please give notice to the Catering Office, either in writing (The Catering Manager, Trinity College, Cambridge, CB2 1TQ) or by email (catering@trin.cam.ac.uk) or by telephone (01223 338547, between 9 am and 4 pm, Monday to Friday). Please also let us know if there is/are any Fellow(s) whom you would particularly like to meet when you come to dine (though of course we cannot guarantee that they will be able to dine on the night when you come). Dinner is at 8 pm during Full Term and at 7.30 pm in vacation; sherry is available in the Fellows' Parlour half-an-hour beforehand.

Please note that a gown should be worn only by those MAs who are resident in Cambridge.

While MAs are welcome to dine as a party, please note that the total number of MAs and guests dining on any one night is normally limited to 6.

Annual Gatherings

Annual Gatherings were held in 2016 for matric years 1953–57, 1958–1961, 1975–1977, and 1994–1995. The speakers were Michael Thomas, Wade Allison, Stephen Cooper, and Salma Fahmy.

Future gatherings are planned as follows. As announced previously, we have reluctantly agreed that we must ask members to pay for bed and breakfast if they stay overnight in College when attending a Gathering. For the Gatherings to be held in 2017, the charge will be £50.00.

2017

Saturday 15 July

1981 – 1983

2018

1978 – 1979

1984 – 1986

2019

1962 – 1964

1987 – 1989

Wednesday 19 July

Up to and including 1952

Alumni Achievements 2015–2016

The date given as the date of matriculation is the date of first entering the College, either as an undergraduate or advanced student.

- 1980 **P T Arkwright** appointed British High Commissioner to Nigeria 2015.
- 1967 **J M Ashley** *Food Security in the Developing World* 2016.
- 1971 **D Barclay** Deputy Chairman (reappointed), British Library 2015; Senior Independent Director, Wates Construction 2016 and Wessex Water Services 2016.
- 1990 **G L Barwell** Minister of State for Housing, Planning and Minister for London 2016.
- 2009 **C E Brienza** *Manga in America* 2016.
- 1983 **L S C Bristow** Her Majesty's Ambassador to the Russian Federation 2016.
- 1972 **J P Burrows** FRS 2016.
- 1957 **S F Bush** *Britain's Referendum Decision and its Effects* 2016.
- 1979 **A R T Butterfield** John M Schiff Professor of English; Professor of French and of Music, Yale University.
- 1991 **D J Byrne** Headmaster, Loughborough Grammar School 2016.
- 1968 **S R Cannon** MBE for services to Orthopaedics 2016.
- 2001 **B Chakrabarti** Professor, Neuroscience and Mental Health, University of Reading 2016.
- 2000 **C Choudhury** *In the footsteps of Gandhi* (published in Condé Nast Traveller 2015).
- 2005 **J Conlon** Professor of Theoretical Physics, University of Oxford 2015; *Why String Theory?* 2015.
- 1990 **H J P Cuddigan** QC 2015.
- 1984 **B Cummings** Circuit Judge 2015.
- 1979 **B A Cummings** FBA 2016.

- 2007 **M J Dal Santo** *No, It's Not 1937: Getting Our Words About Russia Right* (published in *The Nation* 2015).
- 1991 **R Diwan** QC 2015.
- 1973 **M F Doherty** elected to the US National Academy of Engineering 2015.
- 1985 **R J H Edwards** QC 2016.
- 1963 **M J Fass** Professor & Chair of Governance & Leadership, University of Vitez, Bosnia & Herzegovina 2014.
- 2010 (former Visiting Fellow Commoner) **D Feeney** FBA 2016.
- 1960 **R G Forbes** *Atom-Probe Tomography: The Local Electrode Atom Probe* (co-authored) 2014; Inaugural Fellow of the International Field Emission Society 2015.
- 1995 **S M Forrest** *The Age of the Horse: An Equine Journey through Human History* 2016; Sophie Coe Prize 2016.
- 1969 **P A Freedman** OBE for services to the Scientific Instrumentation Industry and to the Economy in Wales 2016.
- 1955 **J H Fryer-Spedding** Honorary Fellow of the University of Cumbria 2016.
- 1982 **A G Galione** FRS 2016.
- 1976 **P N A Girvan** launched new service for BT: BT Property Search 2016.
- 1981 **N A Hansell** *The Sage Train: Philosophy Comes to Life* 2016.
- 2005 **G D Hayward** has created Time Out-style guide of evensong services 2015.
- 1977 **S J Heyworth** Professor of Latin, University of Oxford 2015.
- 2003 **M M Hoffman** New Investigator Award, Canadian Institutes of Health Research; Ontario Early Researcher Award 2016.
- 1965 **D R N Hunt** Treasurer of Gray's Inn 2016.
- 2003 **L Jackson** Pew Scholar 2016.
- 1961 **G Johnson** President, Royal Asiatic Society (from 2009).
- 1953 **M L Johnson** *Noah's Park* (e-book) 2014.

- 1975 **S P H Johnson** Lecturer, Stanford Graduate School of Business 2016–2017.
- 1995 **P Keevash** Whitehead Prize 2015; ERC Consolidator Grant 2014.
- 1978 **R Knowles** Knighthood 2014.
- 1993 **G M Leadbetter** *The Fetch* (poetry collection) 2016.
- 1973 **E E Lemcio** *The Wasteful Gene* (poem), God and Nature Magazine 2016.
- 1975 **O Letwin** Knighthood 2016.
- 2010 **D Levitin** Inaugural Leszek Kolakowski Prize in Intellectual History (Foundation for Polish Science) 2016.
- 1931 **B S Lowe** received his MA at Trinity at 102 years old 2016.
- 1982 **J D A MacGinnis** appointed a Lead Archaeologist, British Museum (Iraq Emergency Heritage Management Training Scheme) 2016.
- 1985 **D MacKay** Knighthood for services to scientific advice in government and science outreach 2016.
- 1974 **R S MacKay** Senior Whitehead Prize, London Mathematical Society 2015.
- 1987 **R B I MacIennan** *Hero City* premiere at 60th London International Film Festival 2016; *The Faces They Have Vanished*, solo exhibition, James Hockey Gallery, UCA 2016.
- 1988 **C K MacNish** Chair, Academic Board and Council, University of Western Australia 2015.
- 2001 **M Mahadevan** FRS 2016.
- 1999 **J H Martin** appointed Residentiary Canon, Ely Cathedral 2016.
- 1977 **T A Meunier** Head, Geneva English School 2016.
- 1994 **N Nair** won the National Visually Impaired Tennis Championships in Roehampton 2015.
- 1992 **R Oliver** Appointed US Magistrate Judge, Central District of California 2015.

- 2001 **S H Parcak** will use TED Prize Money for Crowdsourcing on Archaeological Sites 2016.
- 1981 **W Pearce** High Court Judge 2015.
- 1976 **S L Peyton Jones FRS FRS** 2016.
- 1976 **C M Philpott** *Relics of the Reich: The Buildings the Nazis Left Behind* 2016.
- 2001 **A E Pollnitz** *Princely Education in Early Modern Britain* 2015, Whitfield Prize 2016.
- 1986 **M Reddy** *Social Movements and the Indian Diaspora* 2016.
- 1966 **T C J Ridley** appointed to the Cayman Islands Anti-Corruption Commission 2016.
- 1988 **T A W Riley-Smith** QC 2016.
- 1954 **G E Rogers** Order of Australia (AO) 2013.
- 1978 **C F Roxburgh** Second Permanent Secretary to HM Treasury 2016.
- 1950 **M J S Rudwick** V. V. Tikhomirov Award for the History of Geology 2016.
- 1958 **A W A Rushton** Palaeontographical Society Medal 2016; Clough Medal, Edinburgh Geological Society 2002; Prestwich Medal of the Geological Society of London 2002.
- 1994 **E F Shuckburgh** OBE for services to science and public communication of science 2016.
- 2006 **D E A Smith** *The Vegetarian*, Man Booker International Prize 2016.
- 1976 **S W Smye** OBE for services to health research 2016.
- 1976 **G B Souza** *The Boxer Codex: Transcription and Translation of an Illustrated Late Sixteenth-Century Spanish Manuscript Concerning the Geography, History and Ethnography of the Pacific, South-east and East Asia* 2015.
- 2006 **G Stagg** *The Crossway* (for publication 2018).

- 1965 **P C Stenning** *Governing the Police: Experience in Six Democracies* (co-authored) 2016.
- 2012 **M J P Sullivan** Gordon Duff Prize in the Arts of Manuscripts 2016.
- 1960 **C J G Sutton** Professor of Gynaecological Surgery, University of Surrey 2015; Chairman of the Senate of the European Society for Gynaecological Endoscopy 2015.
- 1980 **S W Taylor** Associate Priest, St Andrew's Church, Stapleford 2015.
- 1974 **B M Tonkin** Chair of the Judges, Man Booker International Prize 2016.
- 1983 **S J Toope** Vice-Chancellor of the University of Cambridge 2017
- 1959 **J R Tyler** Sheriff of York for the civic year 2016–2017.
- 1999 **D J R Vella** Whitehead Prize 2015; ERC Starting Grant 2014.
- 2014 **K K Wang** Sir William Siemens Medal 2015.
- 1973 **R K Ward** Visiting Professor, University of East London, Centre for East London Studies (from 2012); *The London Olympics and Urban Development: The Mega-Event City (Regions and Cities)* (contributor) 2015; *Mega Event Cities: Urban Legacies of Global Sports Events* (contributor) 2015.
- 2001 **R E Watts** *The Met Office Advises Caution* (first poetry collection) 2016, selected as a Poetry Book Society Recommendation 2016.
- 1958 **P T Wilson** President, Cotteswold Naturalists Field Club 2015–2016; Founding Chairman, Woodchester Valley Village (UK's first mutually owned retirement village).
- 1969 **P R Wolfe** MBE for services to renewable energy and the energy sector 2016.
- 1973 **I M Wright** Honorary Fellowship, Royal College of Veterinary Surgeons 2015.
- 2000 **Dr C Yau** Associate Professor in Genomic Medicine, University of Oxford 2016.

Donations to the College Library

In the period from 25 September 2015 to 12 September 2016, the following members of the College gave the Library the books named, which they have written or edited or translated:

W Allison. *Nuclear is for life: a cultural revolution.*

J M Ashley. *Food security in the developing world.*

C Britton. *IT architectures and middleware: strategies for building large, integrated systems.*

C Britton. *Designing the requirements: building applications that the user wants and needs.*

P N Brooks. *Reformation principle and practice: essays in honour of Arthur Geoffrey Dickens;* edited by Peter Newman Brooks.

P N Brooks. *Christian spirituality: essays in honour of Gordon Rupp;* edited by Peter Newman Brooks.

P N Brooks. *Seven-headed Luther: essays in commemoration of a quincentenary 1483–1983;* edited by Peter Newman Brooks.

P N Brooks. *Cranmer in context.*

P N Brooks. *Thomas Cranmer's doctrine of the Eucharist: an essay in historical development.*

P N Brooks. *Hymns as homilies.*

N Brown. *British gunmakers.* Volume 3.

S Bush. *Britain's referendum decision and its effects.*

A Buxton. *Domestic culture in early modern England.*

P Carlotti. *Chimie et expertise sécurité des biens et des personnes;* Pierre Carlotti [and others].

G Corbett. *Vertical readings in Dante's Comedy.* Volume 1; edited by George Corbett and Heather Webb.

P Cruttwell. *Street lamps: light-pools along a random life.*

C Cummins. *Constraints on numerical expressions.*

R S Edgecombe. *A reader's guide to the narrative and lyric poetry of Thomas Lovell Beddoes.*

P Elliott. *Nita Spilhaus (1878–1967) and her artist friends in the Cape during the early twentieth century.*

D A Finch-Race. *Ecosensitivity in Rimbaud's "Comédie de la soif" (published in *Interdisciplinary Studies in Literature and Environment (ISLE)*, volume 22, Issue 3, Summer 2015).*

A N Gabrovsky. *Chaucer the alchemist: physics, mutability and the medieval imagination.*

R Hadfield. *Superconducting devices in quantum optics*; edited by Robert H. Hadfield and Göran Johansson.

P Hardie. *Lucretius and the early modern*; edited by Philip Hardie, David Norbrook and Stephen Harrison.

P Hardie. *The Oxford history of classical reception in English literature. Volume 2: 1558–1660*; edited by Patrick Cheney and Philip Hardie.

P Hardie. *Augustan poetry and the irrational*; edited by Philip Hardie.

W Henderson. *Tudor on charities.* 10th edition; William Henderson, Jonathan Fowles, Julian Smith.

D Hodges. *On the seventh wave.*

M Howe. *Dom Miguel's exile in England 1847–51 (published in *The British Historical Society of Portugal, thirty-sixth annual report and review 2009*).*

K Jeffery. *1916: a global history.*

J Khalfa. *Écrits sur l'aliénation et la liberté*; Frantz Fanon; textes réunis, introduits et présentés par Jean Khalfa et Robert Young.

Sir Elihu Lauterpacht. *International law reports*, volume 161, 164; edited by Sir Elihu Lauterpacht and others.

A Leighton. *Spills.*

J Marenbon. *Medieval philosophy: a very short introduction.*

N McCrery. *The fallen few of the Battle of Britain*; Nigel McCrery and Norman Franks with Edward McManus.

N McCrery. *The extinguished flame: Olympians killed in the Great War.*

C Moore. *Margaret Thatcher: the authorized biography.* Volume 2.

J Moshenska. *A stain in the blood: the remarkable voyage of Sir Kenelm Digby.*

D J Murray. *The longest month and other poems.*

D J Murray. *An apology and other poems.*

D J Murray. *Summer in September and other poems.*

M Naylor. *Carl Peter Thunberg: botanist and physician;* Marie-Christine Skuncke; language editing by Martin Naylor.

M Naylor. *Focal point of the sacred space: the boundary between chancel and nave in Swedish rural churches, from Romanesque to Neo-Gothic;* Anna Nilsén; translated by Martin Naylor.

M Naylor. *The Gothic sculpture of Uppsala Cathedral;* Anna Nilsén; translated by Martin Naylor.

T Newbolt. *Honoré de Balzac: The unknown masterpiece.*

T Newbolt. *The Reeve Angel book of aquatints.*

T Newbolt. *The Reeve Angel massacre of the innocents.*

T Newbolt. *The Reeve Angel passion.*

R Paulin. *The life of August Wilhelm Schlegel: cosmopolitan of art and poetry.*

M H Pesaran. *Time series and panel data econometrics.*

M Pill. *Choices and chances 1948–1969: memories of a Cardiffian.*

C Potter. *St Laurence's Church, Ludlow: the parish church and people, 1199–2009;* Chris Potter, David Lloyd and Margaret Clark.

J Rogers. *The undelivered mardle: a memoir of belief, doubt and delight.*

B Vickers. *The one King Lear.*

M Warner. *Managing China's energy sector: between the market and the state;* edited by Malcolm Warner and Hongyi Lai.

J C Wells. *Sounds interesting: observations on English and general phonetics.*

J C Wells. *English intonation: an introduction.*

N Wheeler-Robinson. *BWR –an adequate life?*



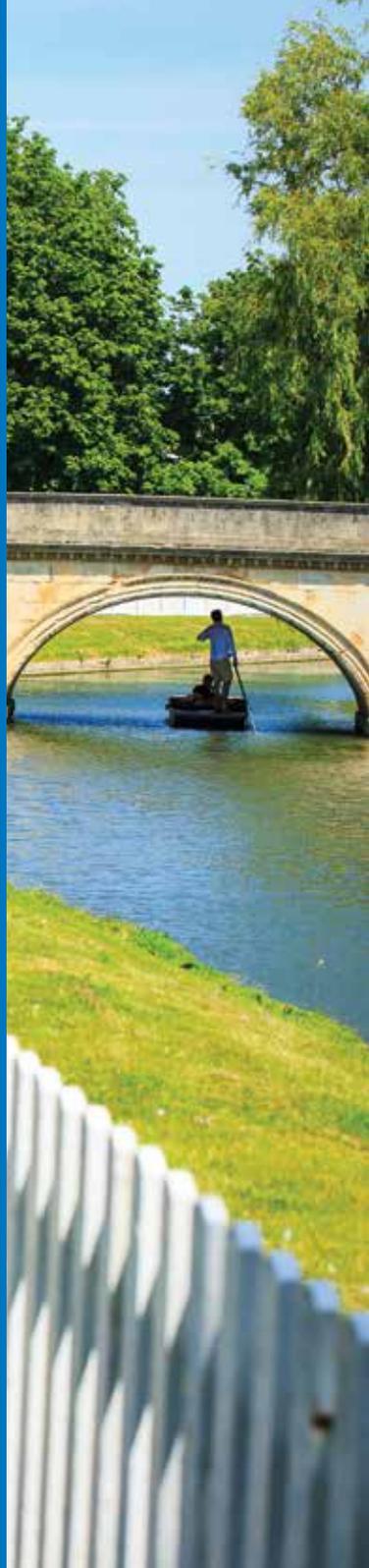
COLLEGE ACTIVITIES

FIRST & THIRD TRINITY BOAT CLUB

FIELD CLUB

STUDENTS' UNION AND SOCIETIES

COLLEGE CHOIR





College Activities

First & Third Trinity Boat Club

By Matthew Griffiths

The year begun with the club hoping to capitalise on a strong novice programme generating quite a number of promising rowers. On the women's side, this led 3 of the previous year's Mays crew to make the step up to trialling for CUWBC, while on the men's side 3 of last year's Mays crew also decided to trial for CUBC as they had done the year before. This, unfortunately, left both squads somewhat depleted in terms of numbers during Michaelmas term. The women's side, led by their captain Rachel Grewcock, and coach, Peter Ford, initially focussed on doing a lot of small boats work, to both develop skill and make up for a lack of numbers for 8s. The men were fortunate to have Tom Rose, who had come over from New Zealand the year before, around for the next year to be head coach again. In the Universities 4s races, the men's side showed some strong results with the first IV losing to the finalists, the 2nd IV reaching the finals, and the light IV winning their race and competition! Whilst this was happening, the LBCs were working hard to recruit the next generation of Trinity rowers with the ever dependable support of Neil Talbott who, as ever, dedicated huge swathes of his time and energy to ably train up the next generation of First and Third rowers. This hard work lead to several strong results with the 1st novice men's boat coming second at Clare Novices and in Fairbairns, and the 1st novice women's boat coming 3rd at Novice Fairbairns. Perhaps the most impressive result was that of the 2nd Novice Men's Boat who came 3rd overall, only 10 seconds behind our 1st novice men's crew. In Senior Fairbairns the 1st Men's Boat came 5th, a solid result for a relatively inexperienced crew.

The start of the New Year heralded the traditional pre-Lent term training camp. The camp this year was held at the Gravelines Rowing Lake in France, with

nearly 30 rowers including a good mixture of senior rowers and promising novice rowers. The camp faced various challenges, including having to organise alternative transport arrangements the day before it was due to start, and gale force winds forcing the women's boat to beach at the 1km mark and be carried back to the boatyard! However the club showed tremendous resourcefulness and spirit in overcoming these various difficulties. In particular I would like to thank Chris Black, the previous captain, who at a moment's notice agreed to trailer our boats down to France; Jon Davies, who lent him the car to do so; Zoe Wible, for helping organise the camp; and Preeyan Parmar, Daisy Gomersall and Peter Ford for volunteering their time to coach. In spite of all of this, the camp was very successful allowing many quality miles of rowing, competitive side-by-side racing, strong development of novice rowers and many new friendships.



Some side by side racing at training camp.

There was no let up after the end of training camp: with Lent Bumps a scant 6 weeks away, both sides set to work to get race ready. Once again the women's side would have to integrate ex-novices into their 1st boat, so they immediately set to work inducting them into their crew. On the men's side, a senior squad of 3 crew was formed to allow the ex-novices to train and race with more experienced rowers. This strategy greatly benefitted the Men's 3rd boat, who went up two in bumps, bumping two 2nd crews. The 1st and 2nd Men's crews both stayed level, bumping once and being bumped once. The 1st Men's crew fell to a very strong Lady Margaret crew who, after a long-fought battle, bumped the 1st boat just 300m from the finish line, while also bumping a Queen's crew outside the plough who had beaten them at Fairbairns. While the 2nd boat had a heroic row-over in front of a Queen's 2nd boat, which they then had to repeat for a re-row! The women's side struggled with injury and inexperience in their bumps campaign and ended up down 3. On the men's side training continued in preparation for the Head of the River Race. Like the year, before both crews headed down to

London to experience and train on the Tideway. The 1st boat came 145th and the 2nd boat came 238th.

During this period, the club's trialists were preparing for their own boat races. Ali Abbasi, a previous men's captain, successfully made the step up into the Blue Boat, Trinity's first rowing blue since 2007. It was an inspiring achievement, given the class of this year's Blue boat, who had dispatched strong Oxford Brookes and German U23 crews with ease. It was all the more so because Ali had learnt to row at First and Third (having only tried out because he was offered a free drink during fresher's week!). Hugo Ramambason (coxing) and Piers Kasas also both retained their places in Goldie. On the Women's side Liv Godwin (coxing), Imogen Grant and Chloe Edwards were all competing for places in crews, even though they had all only learnt to row the year before. Liv narrowly lost out on coxing both Blondie and the Lightweight crew, while Chloe just missed selection for the women's lightweight crew. Imogen, who had won gold at the European University Rowing Championships with CUW in the 8 the summer before, did not quite make the blue boat, but was selected to stroke both Blondie and the Lightweight 8, as it was decided to double up 4 of the lightweights into Blondie. At the Henley Boat Races, in very challenging conditions, Chloe won her spare pairs race, albeit with some exciting steering, while Imogen agonisingly lost by just 3ft. One week later, it was time for the heavyweight boat races on the Championship Course, with close to swamping conditions. Ali Abbasi and the Men's Blue boat put in an imperious performance to defeat Oxford and end their period of dominance, while Imogen was able to avenge her defeat by stroking Blondie to victory.



Ali Abbasi (2nd from the left).

May term started with a win in the Foster-Fairbairn Men's Pair and the Women's Lowe Double Sculls in the Small Boat Regatta. All 6 triallists returned to row with the college boats, providing a valuable injection of experience and skill to elevate the rowers around them. Last year the men's side had made a small error when overlapping with Downing resulting in them getting bumped by the crew they had bumped the day before, so this year, revenge was duly sought against Downing. The Women's side wanted to solidify their strong position from last year however faced some strong crews below them.

7 boats from First and Third competed in this year's May Bumps race, with a return of the now infamous grad boat, with even more garish tank tops. Demonstrating their speed in perhaps a unique way of blading (it would be interesting to know if this has ever happened before!) They bumped the same Hughes Hall 2nd Boat twice, as Hughes overbumped over the grad boat on the Wednesday and Friday, but were bumped by the grad boat on the Thursday and Saturday, so both crews ended up 4 while starting next to each other! The women's 1st boat started off well, rowing over well clear of their chasing crew and ending inside station on a strong Jesus crew, unfortunately it all fell apart on the Thursday, where the Clare crew chasing them caught them off guard with a fly or die sprint that they failed to respond to in time. Over the next two days the women then fell to two very strong crews. Still a relatively young crew, this hard lesson will help drive them in their future rowing careers. On the first day, the Men's boat was out for blood, seeking to bump the Downing crew that had just evaded them the year before, and in a clinical performance they bumped the Downing crew 100m before the railway bridge, exactly where they should have bumped them the year before.



The 1st Men's boat racing in bumps.

On the Thursday, a crab from the Jesus crew in front took the margin to a couple of metres, the Jesus crew just about managed to evade the crew. On the Friday, the 1st boat was chased by a fast blading Clare crew and they knew their only option was to bump Jesus. In a “Death or Glory” sprint the crew managed to get to 2 feet of overlap on Jesus in front round Ditton, unfortunately this was not quite enough and in the ensuing death were bumped by Clare.

In both bumps this year the men stayed level at 6th while the women fell to 8th. These are not the results that either side had hoped for, and perhaps demonstrate a relative lack of experience in crews. Fortunately for most of the people in these crews, these will not be their last results, and they have opportunities to take these experiences to drive them on to work harder, train better and race faster. Indeed many of the people in these crews will be trialling for the university squads next year. This process of helping people learn how to push themselves harder and seek higher goals, that can take someone who just wanted a free drink and guide them along the route to winning a boat race, is what makes me most proud to be a member of First and Third and to have been a Captain. It is one tradition that First and Third will always hold strong.

Finally I would like to thank all those who donated their time to coach and support First and Third and wish the future captains the best of luck.

Ra, Ra First and Third.

Field Clubs

Trinity Badminton Club

By Saachi Sen

Badminton at Trinity has had a number of great successes this year and an overall high performance from the Men's and Women's teams. Interest in badminton has been so high that we've seen the formation of a new Women's Second team, under the captaincy of fresher Charlotte New. This team has spent the year becoming established in the league, and undergoing focused training.

Women's Firsts have continued to play well in the Intercollege first division, led by fresher Natalie Underwood, having taken on the role halfway through the year from previous captain Chuyi Yang. It was Yang's captaincy in 2015 that saw the Women's Firsts advance two whole divisions to its current position, and Underwood has worked to maintain strong performance among the changes in the team, including the departure of top player Sowmya Purushothaman midway through this academic year.

The Men's teams too have seen an overhaul, streamlining the previous four teams into Men's Firsts, Seconds and Thirds. The Thirds have been captained by Stefan Lacny, the Seconds by Chengran Xie. Firsts, captained by Muhammad Asadullah Khan, have achieved the fantastic position of third in



the top division, losing out only to the well-established teams of Jesus and Wolfson College.

During Lent term, all teams participated in the Intercollege Cuppers tournament once again. Despite the loss of a key player, the Women's Firsts played excellently in their matches, managing to reach the semi-finals held at the University Sports Centre for the second consecutive year. The first pair played a fiercely competitive semifinals match, battling on after losing their first game to win their second by a healthy margin, but losing their final match. An absence of a third pair made it impossible to advance to the final, however the team resolved to work hard to achieve good placement for the following year. Meanwhile, the mixed cuppers team made it past their semi-finals matches with ease, with all pairs defeating their respective opponents within two matches. Unfortunately they came up against tough competition in the final, but still placed second overall among all the Cambridge college mixed teams. This rounded off an excellent year for Trinity badminton, making and keeping a name for itself in the context of university wide performance. We hope and strive to see even better results in the upcoming seasons.

Trinity College Real Tennis Club

By Brieuc Lehmann



TCRTC has enjoyed an encouraging year as one of Trinity's youngest sports clubs, having only been founded in 2014. Generous funding from the Field Club enabled over 20 students to try the game of kings for the first time, and several continued to play after their introductory session, getting hooked on the sport's intriguing mixture of skill and tactical play. Two students, Micah Brush and Brieuc Lehmann, even participated in a doubles' tournament commemorating the 150th anniversary of one of the courts at the Cambridge University Real Tennis Club. Unfortunately, the pair were knocked out in the group stage of

the competition, losing to Trinity fellow and Field Club Treasurer, Dr Jeremy Fairbrother, and his wife, Linda Fairbrother, in the process! The year finished on a high, however, with a fantastic trip to France to play at the illustrious courts of Paris and Fontainebleau. TCRTC hopes to build on a promising second year, aiming to increase participation even further and perhaps reach the knock-out stages of a tournament!

Trinity Swimming

By Jacob Brown

Trinity swimming performed well in the competitive sense this year. At the annual swimming coppers competition, we fielded both a men's and women's team that competed in all events. The men's team in particular, made it through the heats into the finals for three of the events and came 2nd overall in the 100m breaststroke and 100m individual medley events. Overall, the college placed 3rd in the coppers competition, which despite the lack of recurrent training sessions, showed the strength of our side.

With this being said, the lack of swimming training or "pool time" for Trinity College swimmers throughout the year is a notable absence. There is much enthusiasm at chaplain's squash from people interested in continuing swimming at university, however the lack of options for swimmers who do not wish to make the commitment to blues-level sport remains a bit of a problem. There is the potential to look into scheduling some pool time with the water polo team, but this needs to be investigated with local pools.



The Cuppers Swimming Team of 2016.

All in all, it's been a relatively good year for Trinity swimming and the sense of team spirit at the Cupper's event (and the post-competition meal), was very enjoyable. Onwards and upwards for next year!

Trinity Water Polo

By Jacob Brown

The Trinity Water Polo team came together well this season, with every match a victory in college league this year. The reason for this is twofold, I believe. We have a committed core of water polo players, many of whom also play for the university team, but we also have a significant number of students within the college who are keen to play and learn. This is critical in a low-volume sport like water polo where having sufficient numbers to field a side is one of the most important aspects of a successful team. The level of commitment of these more junior players has been very encouraging and creates a welcoming culture within the team. We have formed a partnership with Downing College, to ensure access to a larger pool of players, and will be competing alongside them in the coming year.

The result of water polo coppers was not as positive as last year, (where we obtained 2nd place) but we had some strong matches and ended up in 4th position. If training times and pool times can be arranged for this year, the training of more junior players may well result in a reliable supply of quality players, allowing us to have more structure within our games.



The Water Polo Cuppers Team of 2016.

Trinity College Rugby Club

By Humphrey Galbraith

Trinity College Rugby has had a tough year, struggling with the ongoing issues of numbers that have dogged us in recent years. That being said, we have performed admirably despite often-reduced size: demonstrated by our team of 13 defeating Hughes Hall/ St Edmunds 42–14. Having dropped to third division last year, we finished in 4th place, narrowly missing out on third after a thrilling penultimate match against Pembroke. Alternating tries for the whole game eventually went their way. With a good fresher intake this year, a trend that will hopefully continue next year, I wish the team all the best in the next league.

Being in Div 3 puts us in the trial first round for cuppers, which we played against Trinity Hall. Sadly, having already been beaten by them in the league, we couldn't edge them out, and we were put into Cuppers plate. We went through to the semifinals, and lost to Homerton.

Colours for this year were given to Marcus Hendrickse for his great management of the back line and his commitment to Trinity rugby over his years here, Harri



Foster Davies for his incredible play (top scorer for Trinity and possibly 3rd Div), and calm head under pressure, and David Morris, who goes on to lead the team next year and has been a stalwart of the offence and defensive forward moves the whole year.

Our annual match against Christchurch, Oxford was also very close, the match ending 18–22 down and neither team ever more than a try ahead. The Easter term brought the alumni match, a really good chance for everyone to have a bit of rugby in an otherwise study-heavy term. This was a terrific match, and while the current team dominated the first half, the old boys put up a great second half with very strong backs moves and team coordination to much shorten our lead. I much look forward to playing for the other side next year. Finally, in Easter, we had the 6 a side touch rugby on Grange Road. This necessitated 2 girls per team, and Trinity delivered very well. We were undefeated in the three sessions, which demonstrates the talent of our players, and of particular note should be the strength of the Freshers who turned up: James Bolton-Jones, Andrew Camsell and Jack Dickens. They are set to do very well.

I would like to thank everyone who played this year, both those incredibly committed players who turned up for everything, and those who were kind enough to lend a hand on certain matches when we needed them. I wish next year's captain and vice captain, David Morris and James Bolton-Jones, the best of luck and I wish next year's team a terrific season and look forward to seeing you all again.

Trinity Women's Football Club

By Catriona Chaplin

Trinity women's football team (TCWAFB) have had a very successful season this year. Losing only one match in the college league against Jesus, TCWAFB came second overall in Division One. Having reached the semi-finals of Cuppers in 2014–15, TCWAFB were disappointed to be knocked out in the first round against a strong Murray-Edwards Girton side, who were the overall runners up in the competition. The team overcame this defeat and progressed to the Plate Final, coming out on top with a 2–0 victory against Trinity Hall.

Another highlight of the 2015–16 season was the teams convincing win against Christchurch, which was a high scoring game with a final score of 10–0. There

were excellent goals from several members of the team, but woman of the match was selected by Christchurch as Kathryn Savage. TCWAFC also had a great win against the old girls team at this year's alumni sports day. There was a strong showing from alumni but the current women's team triumphed 2-0.

A special thanks must go to Chris Scott for leading a number of training sessions throughout the year, which were extremely beneficial in helping all the team improve their skills, particularly those who were new to the sport this year.



I gladly award 'player of the year' to Jessica Hyde who worked tirelessly in the midfield, and played a key role in motivating other players whilst on the pitch. The most improved player of the year' was awarded to Talia Zybutz for her outstanding performance in defence this season. Chloe Havadas was named 'best new player', with some excellent dribbling in the left midfield. I would also like to thank Caitlin de Jode for her strong commitment as goal keeper. Despite the freezing cold in which some matches were played, Caitlin's enthusiasm has never waned, and her encouragement throughout matches has been invaluable, as has her goalkeeping, particularly in tough matches such as that against Jesus. The 'lifetime achievement' award unarguably goes to Mary Harvey, who has been a core member of the team over her four years at Trinity, having also captained the team last year; she will be sorely missed. I would also like to thank Jessie Barnett-Cox and Casey Rimland

who will all be leaving us this year but have been key squad members. I am very excited to hand over my captaincy to Jessica Hyde, who has been a crucial member of the team this year and I know will make an absolutely fantastic captain.

Trinity College Running Club

By Sarah Lovewell



Each year the Trinity College team takes part in the college league organised by the university cross-country running club the Hare and Hounds, the first fixture of which is the Freshers' Fun Run. The season began well with a strong team performance by the women, who all finished inside the top twenty (Sarah Lovewell 1st, Yanna Rykov 9th, Claire Harmange 12th, Emily Lachmann 20th), securing second place in the team competition. The men's team finished 5th with Joseph Barker the top finishing Trinitarian, a performance he followed with 14th place in the next race, the Fen Ditton Dash. Unfortunately the women were unable to consolidate their position in the league at the Fen Ditton Dash and illness and injury hampered the hopes of success for the season. There were, however, a number of notable individual performances from Trinity students on the athletics track. Rasmus Kisel in particular impressed with a win in the 400m at the Freshers' Varsity Athletics match against Oxford. He managed to carry this form into the summer where he won both the 400m and 800m for the Alverstones at the Varsity Athletics meeting. There is certainly a lot of running talent at Trinity and with consistent entry into the college league races in future years both teams have every chance of victory.

Trinity College Tennis Club

By Matthew Hassall

The growth of tennis at Trinity this year has been explosive. While we may not have vanquished all-comers in Cuppers, court-time in both practice and matches has been in overwhelming demand—a result of the successful foundations set by the previous captain, Daniel Blower, and not of the terrible jokes to which the current captain has subjected the mailing list.

In Michaelmas, Trinity II reigned supreme in Division VI in only their second year. Captained by third-year Olivér Janzer, Trinity's most dependable player – both for his religious attendance at practice and phenomenal consistency on court – competition for places was fierce as the side completed an imperious, unbeaten campaign to win the division and promotion. A 5–1 defeat of Jesus III on the opening day set the tone for the weeks to come: Olivér and Nathan Day delivered nerveless performances as St John's II were beaten 28–27 on games after a 3–3 draw, and the team lost only one more set all term as Clare Hall, Downing II and Peterhouse were ruthlessly dissected. It was a wonderful series of performances from a dedicated squad, who will fully deserve continued success in Division V.

In Division II, Trinity I's promotion push fell agonisingly short. A bold team selection of three first-years for the opening game against Churchill I did not quite pay off, as Guillermo Villalba-Cuesta, Haider Suleman and Reza Rohani – and, in the interests of fairness, your writer – all missed points to win rubbers in a match that Churchill pipped 2–4, proving that mental grit is not to be found at the end of the first week of Michaelmas. The team remained lucky to have those three players as Trinity I reprised last year's third-place finish. Pembroke I and Robinson I were both beaten comfortably before Christ's I, the runaway division winners, were taken to the wire in a 2–4 Trinity defeat, thanks in large part to a Herculean effort from first-year and half-Blue Claudia Dickinson. The term ended with a whitewash of Clare I and, if Trinity's opponents had not saved four separate set points across the course of the term, we would be looking forward to top-division tennis again next year. As it is, a strong fresher contingent and last year's mainstays, Ravi Willder and Daniel, produced a very credible finish in a tough league.

In Cuppers, two Trinity sides were entered for the first time in student memory, but both were denied runs deep into the competition by unfortunate draws. Trinity II secured an excellent 6–3 victory over Churchill II in the first-round

through a clean sweep of the doubles made possible by committed serve and volley practice. In the last sixteen, the team pushed Christ's I, Trinity I's Michaelmas nemeses, extremely close on the first day, but were overcome on the second. Credit must go to Nathan Day, who beat a university player in straight sets, to winning debutant Fingal Loh, and to the ever-dedicated Micah Brush, Yutian Wu, and Barnabás Janzer.

Trinity I endured an even tougher draw. The run to the semi-finals of the previous year earned them no mercy from the seeding system, but a thrilling show of resilience saw Darwin I beaten in the opening round. With Trinity I trailing 4–2 at the end of the first session, postgraduate Alex Kendall and first-year Claudia Dickinson combined in stunning fashion to salvage the match and steal a 5–4 win that seemed beyond hope. In the last sixteen, though, an Emmanuel I side that was packed with university talent, aided by an injury to Trinity's men's Blue Vasya Kusmartsev, saw premature dreams of bringing Cuppers home crushed. Second-year Evgeny Roskach was the stand-out performer in these two games, picking up a racket after years of rust to defeat one half-Blue and push another to his very limits, and Daniel and women's Blue Jane Coombs were similarly brilliant at the top of the playing order.

Though the glory that the team's quality deserved did not materialise, the year was still an outstanding one. The entire team had magnificent fun at both the Alumni Sports Day and the Christchurch Exchange, new kit was designed and personalised, and attendance at practice and desire to play competitively increased so greatly that tennis at Trinity is in good stead for next year's successes in the capable hands of incoming captain Ravi Willder. Field Club colours were awarded to Evgeny Roskach and Reza Rohani for their commitment and their performances, but every name mentioned here and deserves recognition for making this year of tennis so enjoyable.

Trinity College Lacrosse Club

By Nathaniel Truman

Trinity College Mixed Lacrosse is a fairly new team, having just finished its second year. Therefore we needed to build and grow the team a lot. We started the year in the bottom division in a league which consisted of 3 divisions. In first term, much of the team was still completely new to the game so winning wasn't

easy. We ended the Michaelmas term 4th in the division which consisted of 8 teams. This wasn't enough for promotion, however the team had improved a lot.

In Lent term, with a more experienced team we had success. With 5 wins, 1 draw and 1 loss, we ended up joint first in division 3, which means we will be promoted to division 2 next Michaelmas. We were unable to take part in Mixed Lacrosse Cuppers in Lent term as we were in Oxford taking part in the Trinity Cambridge – Christ Church Oxford varsity sports day. This game was less successful, losing 7–1 to a much more experienced team which consisted of several university level lacrosse players.

Overall this year was a big success for Trinity Mixed Lacrosse as the team grew and was promoted in the league. Next year we hope to recruit lots of freshers, and have more training sessions in order to stay competitive in division 2, and to perhaps be promoted again.

Trinity Basketball Club

By David Morris

We started off the year in Division 2 (out of 5), and were fortunate to retain the majority of our players from the year before. As a result, we anticipated another good year; however we had a few new strategies to help us achieve even more.



Firstly, on top of our undergraduate recruitment from the first year students, we made a big push to also entice a number of the many graduate students hidden away in Trinity. This more senior source of talent added a phenomenal amount of experience (and some USA genetics) to our team. With the quality of our graduates and the enthusiasm and athleticism of our first years joining what was already a solid team, it was obvious from the start that we were no longer destined for the 2nd Division.

Our second big change was to set up an unconventional alliance with St John's. By sharing training facilities we got more on-court sessions, more people and, most crucially, we were able to simulate a competitive game environment on a dramatically more regular schedule. Through this partnership, both teams developed and grew, and this was exhibited in our success.

Having had very little professional training of my own, I decided to that our training sessions would be based around two simple ideologies:

- Be fitter than our opponents
- Have more fun than our opponents

This combination of enjoyment and intensive exercise schemes made up the majority of our training, forming strong bonds between teammates and giving us an edge against most other teams, who exhibit impressive technical skills, but lack cohesion, teamwork and stamina.

The end result was a flawless Michaelmas term with a promotion to Division 1, and then an almost-flawless Lent term with just one loss, securing our place as second in Division 1. Cuppers' didn't go so well, with our first game coinciding with Christchurch, such that we were missing some important players. But we needed something to aspire to for next year.

Next year, our partnership with John's will continue, and Matthew Dougherty will lead the team to even greater heights than we have already achieved. With our continued success I believe that we will be able to increase awareness of basketball as a priority option for involvement in sport at Trinity.

Trinity Mixed Netball Club

By David Morris

Coming on the back of the previous year as Cuppers' finalists and a barely altered roster of class, we knew this year was going to be a good one. With a top quality Women's first team supporting us, and a selection of men that would stack up with some of the best netball players in the world, it wasn't surprising that we only had two sombre occasions in an otherwise jolly year of fun: a loss in the Cuppers' final and a concession on the day of Christchurch – where we instead took the time to educate our Oxford sister-college on how mixed netball should be played.

We won every league game played, going from the bottom of Division 2 all the way to second place in Division 1. That, paired with a repeat of the previous year, a loss in the cuppers' final against Downing (who were also the team above us in Division 1), led to a sour taste only slightly tainting an otherwise sweet year of victories. But with almost the entire Downing team leaving and a strong cohort of ours remaining, I'm hoping that next year, in my 2nd year of captaincy, we shall achieve what has been eluding us, the title of undisputed champions of Cambridge Mixed Netball.



This being said, we do not forget our roots. Mixed Netball has always and will always be the most laid back, casual, and enjoyable of Trinity sports. That doesn't mean we can't win a bit while we're at it.

Trinity College, Netball Society 1st Team

By Caitlin de Jode

Trinity ladies 1sts netball team had a great season this year. We started in Division 2 in Michaelmas, but the addition of several strong freshers meant that we had a very solid squad. Highlights of First term include a 37–5 defeat of Fitz and promotion to the first division for Lent term. This team had only one real focus for this season which was coppers, and therefore our league performance wasn't as strong as it could have been – however there were notable victories over Emma and John's. In coppers, a strong performance in the group stages including a comeback in the second half against Newnham 1s saw us through to the knock out stages. These were held at Downing where the home team had beaten us in the mixed netball coppers final the week before. While they had qualified for the ladies final before our quarterfinal had started, we played our quarter final, semi-final and the final without a break. By the time we faced Downing the team were exhausted and despite playing well, particularly at the start of the second half, we were defeated.

However throughout the season we saw great play across the court, a much improved defence from last year and some great netball!

Colours go to Claudia Dickinson (captain for 2016–17) for her excellent shooting skills, and Olivia Anderson for magnificent defence and also playing the knockouts of coppers with a fractured wrist.

Trinity College Netball Club – 2nd Team

by Sarah-Anne Giles

The Trinity Netball 2nds enjoyed a steady 2015–16 season, maintaining our place in Division 3 of the Cambridge University College Netball League. Despite an often changing line-up of players for each match, the team always meshed well together and showed inspiring camaraderie on court.

Match highlights included the team's landslide 13–2 win over Hughes Hall at the very start of the season, merely indicating how we intended to go on. Another impressive victory was our 10–3 win over the Medics, where the team persisted despite relentless rain. The tensest highlight, however, came in the form of a



hard-fought 10–6 win over King’s College that went goal-for-goal until the team forced two turnovers from the opposition in the final minutes of the match.

Special mention must go to this season’s award-winners. Lizzie Withers was voted the “Most Valuable Player” for her impressive ability to both attack and defend with ease. As Centre, she managed to connect the team’s defence and attack ends, using her excellent agility to constantly evade her opposition. Our “Most Improved Player” was undisputedly Leyla Hepsaydir who, after starting as the team’s Wing Defence, transitioned flawlessly into the Goal Keeper position. Her excellent defence work produced numerous interceptions that proved key in the team’s victories. Finally, our “Sportsmanship Award” went to Penny Marshall. Our ever-consistent Goal Shooter, her commitment to the team was unrivalled with her being present at almost every match of the season. Supporting from the goal circle, it was often her encouragement that saw the team step up its game in order to win.

It has been a pleasure to captain the Trinity 2nds this season, and I look forward to hearing about what I am sure will be another fantastic season of netball for them in 2016–17.

Trinity College High Table Cricket Club

By Cameron Petrie

The 2016 season for TCHTCC was quite disappointing, as the majority of our scheduled games were cancelled either for want of opposition or due to rain. We were however, able to play our annual fixtures against the Jesus College long-vac side and HPE Autonomy, and this year also saw the return of our fixture against St John's high table.

Our first match against Jesus was effectively a game of two halves – the first where we initially contained and then dominated a strong Jesus batting line up, and the second where we completely fell to pieces. With Jesus being put into bat, our bowlers weren't given much time to warm up as the Jesus openers attacked from the off, but wickets soon came in the 8th, 10th and 11th overs, leaving them momentarily stalled on 39/3. Although their middle order rallied, Trinity High Table stalwart Donald Tipper (1/8 off 2 overs) drew the desired mis-hit in his first over and removed the most dangerous of the two bats, and Stefan then opted for the "Collini stranglehold" and bowled the new bat, soon after trapped the Jesus captain LBW, and then drew a catch from their number 7 to finish with 3/31 off 12 overs, including 3 maidens. He was ably partnered by Trinity debutant (and new JRF) Joe Keir who bowled a needling line from the other end, and although he bowled one loose over, Joe responded well to the captain's requests that he have "just one more over", and proceeded to close down the Jesus tail and finish with 3/26 off 9 overs with 2 maidens, allowing us to bowl Jesus out for 139. We had every right to feel optimistic about going for an outright win.

On paper our batting order looked quite robust and certainly capable of the chase, but our best laid plans were laid waste when our openers fell early. Patrick Nielson (19 off 61 balls) started to block his way in but managed to run out his partner while going for a slightly ambitious second run prompted by the growing desperation to get the scoreboard ticking. With another wicket we were sitting battered and almost broken at 6/4 in the sixth over. That we actually had 6 runs was primarily due to the fact that the Jesus wicket keeper had missed one that went through and hit his helmet, thus gifting us five penalty runs, so we were actually 1/4, and the sole run had come at the expense of Donald's wicket. Rebuilding was certainly required, and in partnership with Richard Serjeantson (4 off 14 balls) and then Doug Buisson (11* off 50 balls), Patrick blocked, nudged

and crunched us into double figures and then brought us to the starry heights of the mid-30s. When Patrick soon fell our last four wickets followed quickly resulting in a total of 41 all out (including eight ducks), which is the lowest ever score by Trinity High Table, at least as recorded in our current scorebook, nobly aided by one “Jesus helmet” who snaffled our third highest score (5*).

Our match against HPE Autonomy couldn't be more different as we were faced with an opposition made up of 9 players that was clearly short of some of the players that helped them defeat us so comprehensively last year. Trinity won the toss and chose to bat and Cameron Petrie (34 off 33) and Jason Sepetauc (31 off 21) set about knocking around some errant bowling, and were only separated when Jason was deceived by a ball that didn't bounce. As it happened, this opening partnership of 87 pushed the game out of Autonomy's reach. A few wickets and some unusual umpiring saw us crest 100, but in the process we gifted a young Autonomy bowler with a '5-fer' before James McNamara (43* off 17 balls) and Russell Fancourt (9 off 14 balls) pushed our score into the stratosphere helping us reach 195/8 in 20 overs.

Autonomy's task was made all the more difficult when our opening bowlers Jyothish Soman (20/2 off 3 overs) and Patrick Nielson (21/1 off 4 overs) bowled tight lines and snatched early wickets. Autonomy did have one trump card in the form of G. Coy, who knocked first Jyothish, then Patrick, and also first change Ferdi Rex (13/3 off 3 overs) around, but the speed at which he scored meant that his retirement at 40 came quite quickly. Change bowlers Bryn Garrod (8/3 off 3 overs) and Piyush (4/2 off 3 overs) then knocked out the rest of the Autonomy middle and lower order to leave them stranded 8 down for 74, with no one left to bat.

Our final match against the 'old enemy' St John's College High Table. Bulkied up with some last minute additions, John's batting line up quickly set about belting our wayward bowling all over the place and we didn't take up wicket until they had racked up 129 runs. This wicket was taken by our SIXTH bowler Jason Sepetauc (34/1 off 3 overs). Stefan Collini (12/2 off 2 overs) had been justifiably nervous about being brought on, but when he finally took the ball, he drew Gardner into a lofted shot that was grasped by Jason fielding in close, and although the wicket was welcome, far too much damage had been done. Tom Woolford (15/0 off 1 over) nobly stepped in to bowl the last over as a sporting declaration loomed, and was subjected to a final drubbing by the John's middle order, leaving them at 245 for 3 declared after only 27 overs.

Our response started well as Cameron Petrie (19 runs) and Jason Sepetauc (12 runs) started well, and balanced blocks with well struck boundaries and strike rotation, before Jason was bowled and Cameron soon followed. At 35/2 our chances of a win looked slim, but they quickly dwindled as our middle order fell to good pressure bowling. We were soon gasping for breath at 91/7 when Richard Serjeantson (42 off 50+ balls) and Jyothish Soman (18* of 60+ balls) came together. With Jesus declaring so early, we needed to bat for 50 overs to secure a draw, and Richard and Jyothish batted for 16 of those in a partnership of 64 runs that took us a long way towards saving what had earlier looked like a very lost cause. With Richard eventually out, Jyothish entered lock-down and he and Stefan blocked their way through three more overs before the returning zippy opening bowler drew a lofted catch from Stefan. At 160/9, Robin Bhattacharya (0* off 2 balls) joined Jyothish. With three overs to face John's pretty much tried everything, including a ring of close catchers, yorkers, short of a length balls, and even misfields to encourage the single (or even a two), but nothing could break Jyothish's concentration as he peerlessly farmed the strike and dead-batted us to a wonderful is slightly surprising draw. He was appropriately clapped from the field.

We thus finish our truncated 2016 with a big loss, a big win, and a very welcome draw against stronger opposition. Many thanks to all those that turned out, and with any luck we will actually get a chance to have a few more matches next year.

The Students' Union and College Societies

Trinity College Students' Union

By Finn Kristensen

We have had a very good year. Handover went smoothly and this year's committee (consisting mainly of first-year students), has been extremely reliable. In that sense the job as president was quite easy: nobody had to be chased up to perform their duties.

Throughout the year, our Vice President Finn Kristensen has been pressuring the college on matters relating to books: namely increasing opening hours for the library as well as pushing for greater book allowances for students. He has also been representing Trinity as the TCSU's voting member at CUSU meetings.

Toby Henley Smith and Olivia Aaronson, our Welfare Officers, have succeeded in putting on a variety of fantastic events to raise the happiness and wellbeing of the college. This included deliveries of a bar of chocolate to every single pigeonhole in Trinity (something that took longer than they anticipated). They have also been representing undergraduate students in the Trinity Welfare Committee.

To help improve Toby and Olivia's pastoral care-giving abilities, our Computing Officer Jagraj Bhandal integrated an anonymous instant messaging service (between undergraduates and the Welfare officers), into the TCSU website. This has been much praised by the CUSU Welfare team, who are now developing an app to bring this to every college.

Ryan Whiteley (Ents officer) and Niclas Knecht (Treasurer) have negotiated excellent deals with nightclubs in Cambridge to give cheap entry and queue-jump to Trinity students, to the envy of many other colleges. Ryan has worked tirelessly to organise a variety of social events for the entire college to enjoy throughout the year, no easy feat in such a large college. Niclas has also negotiated deals to provide premium sports TV packages to the Trinity JCR at heavily discounted prices.

Our Women's Officer, Raniyah Qureshi, has excellently balanced her welfare and political roles within college. She has effectively organised a series of consent workshops for incoming students in October, as well as distributing free feminine hygiene products to female students throughout the year.

Richelle George (Black and Minority Ethnic Officer) has been working closely with the Senior Tutor to refine college policy on racial harassment and to gather applications statistics regarding BME students.

Mental Health and Disabilities Officer, James Riseley, organised a fantastic event in exam term, bringing in a professional psychologist to talk to students about dealing with exam-related stress. Throughout the year he has also been meeting with senior staff to discuss college policy in relation to mental health, and has been an excellent student representative in this role.

Agustin Braun has been a great representative for overseas students on the committee, in his role as International Welfare Officer. He has successfully ensured that TCSU provides free international electrical adapters to students from abroad. He is also spearheading TCSU's International Freshers Week at the end of September.

Laura Hildt (Environment and Domestic Officer) has been a vital player in the discussion with the Junior Bursar on the matter of non-residential occupation of rooms (i.e. vacation storage), a version of which was trialled over the Easter break, with reasonable uptake. She has also pressured the college on environmental policy.

The first steps towards better rice have been made thanks to Junior Steward Petr Dolezal, who has increased the detail of labelling of the different rices on offer for different dishes in hall. He's also had the thankless job of organising the registration of all college societies.

Our Access officer, Lauren Brown, has been passionately fighting to encourage Trinity applications from less traditional backgrounds. She has been setting up groups on social media to help connect more with working-class applicants and potential applicants to the college.

The legacy of this TCSU Committee is not yet known. In Easter term, the committee (as guided by the electorate), voted at CUSU to hold a referendum on the Cambridge Student Union's membership of the National Union of Students. This University-wide referendum ended with a clear vote to remain, but many at Trinity strongly distance themselves from the NUS. A possible implication may be a referendum on TCSU's membership of CUSU (following in the footsteps of Gonville and Caius and Corpus Christi in 2010).

Trinity College BA Society

By Krishna Sharma

Keeping its tradition, the BA committee continued its efforts to make BAs in Trinity feel at home. We organised a wide range of activities and events throughout this academic year and also represented BA views to the College authorities. We started off with our well attended and successful garden party in June and were quite lucky to have amazing sunny weather on the day to enjoy the afternoon on the Fellows' Bowling Green. The party was nicely rounded off with a delicious combination of ice-cream and strawberries.



BA Committee- Top row left: Karolis Stašinskas (First Year), Mike Bryden (Welfare), Sarah Gibson (LGBT+), Rozi Vöfély (Catering), Arthur Kouyoumdjian (Ents); Bottom row left: Filip Szczypiński (Secretary), Veronika Siska (Ents), Krishna Sharma (President), Jitka Štollová (Treasurer), Natasha Latysheva (Computing); Absent: Emily Gordon (First Year), Sam Brown (Sports), Alex Dear (Ents), Jessica Legre (Woman's).

We then had the Freshers' Week in October, which went perfectly as planned and was again very well attended. Our Welfare Officer did a commendable job of assigning each fresher a family whom they could contact for any queries even before they arrived at Trinity. The Freshers were assigned families, keeping in mind their subjects and nationalities, including two or three current Trinity BA's as their parents along with other first years. This year the committee made an extra effort to work

along with TCSU for the initial three days at the welcome desk and help new incoming students find their way in Trinity. The next ten days were packed with a variety of events to help Freshers mingle and familiarise themselves with Trinity. These included a welcome session with drinks and nibbles, a trip to a traditional English pub, tours of Cambridge and Trinity College covering its intricacies, an English high tea party, international food tasting, punting, and the much awaited Wine and Cheese reception at Neville's Court where the BA committee officially welcomed the Freshers and formally introduced them to the society.



Garden Party.

Following the Freshers week, we were joined by our two first-year reps on the committee, Emily Gordon and Karolis Stašinskas who were responsible for representing the interests of first-year students. We continued with our regular events, which included weekly BA dinners, fortnightly brunches, weekly grad bar nights, and formal swaps with other

colleges. Along with this we also had many other special events spread throughout the year, which included several trips (cultural, Opera House, theatre, hiking, cycling, etc.), jazz night, tastings (wine, vodka), a cocktail-making, gingerbread decorating, book club, and murder mystery. We also continued the BA seminar events this year, which were introduced only a year ago and has become quite popular, while also providing BAs an excellent opportunity to present their work to other students and Fellows in college. As a token of appreciation, the presenters were gifted with free tickets to the BA dinner following the seminar evening. In March, we also had the annual swap with our sister college Christ Church in Oxford along with a dinner-cum-drinks reception visit to Balliol.



Trinity BAs conquering the "other place".

Apart from organising social events we made some other useful amendments. Having thought about the persistent queueing problem at dining hall entrance preceding the BA dinner, we decided to change the pre-dinner drinks timing and introduced an optional group seating reservation system. Fortunately, it was successful in addressing the problem and the committee has now been trying to improve the current existing system of booking. We are now part of the recently set up catering committee along with TCSU, which meets termly to address catering related matters directly with the catering manager. Along with this, we have initiated an accommodation sub-committee comprising of different house reps to discuss accommodation related matters with Bidwells and the JB. We now also have representation on the College contingency planning committee. This year we have also made significant additions to the facilities available in the BA and TV rooms using our annual budget. There is now a brand new LG Ultra HD OLED TV in the TV room along with a new sound system, 3D glasses with a few movies, and an XBOX. We also installed a back massager in the BA rooms. Committee also decided to renovate the BA and TV rooms and bought a new foosball and pool table.

We rounded off our term by conducting the annual survey and the results. Certainly, looking back on the year, I have no hesitation in saying that the whole committee has done a commendable job. I would like to thank all my committee members for their time and collective efforts in organising the great activities throughout the year and also all members for getting involved and making it a lively graduate community. I would also like to thank Trinity College for its continued support and, in particular, the offices of Senior Tutor, Graduates Tutor, Dean, Junior Bursar, Accommodation, Catering, and Liaison Committee. Finally, we wish all the best to the new committee.

The Dryden Society

By Dryden Society Committee 2016

Raniyah Qureshi, Mimi Trevelyan-Davis & Jack Eastwood

The Dryden Society remains one of the major funding groups at Cambridge, enabling not only Trinity students' productions but also productions across the University. As a society, we like to engage and empower student productions which are often less well known, covering an array of topics in engaging and unique ways.

Recently we have funded 'Tribes', an award winning play tackling disability which was universally praised, garnering 5 star reviews across the student press. 'Girls like That' covered the effect of technology on relationships between young women, a feminist outlook on 'Generation Facebook'. Furthermore, we have funded productions of Brecht's 'Life of Galileo' and 'The Good Soul of Szechuan', the latter of which utilised Trinity's Wolfson Party Room as a set, described as a 'bold and unconventional production' by Varsity in their 4.5 star review. Our latest production, a physicalised adaptation of 'Under Milk Wood', encouraged interactive dialogue (via movement) between audience and performers, and was 'unbelievably well executed'.

We also pride ourselves in being able to support new filmmakers. Though they, unlike theatre productions, cannot often repay our funding, we believe they add a vital diversity to the arts in Cambridge. Most recently we have funded a student-written film, 'Morpheus', and hope to premiere it in Trinity's Winstanley Lecture Theatre.

In the future we are looking to fund theatre at the Edinburgh Festival. We have received multiple applications and are currently considering which we would like to fund, in conjunction with our Senior Treasurer, Prof Adrian Poole.

Trinity College Engineering Society

By Zoscha Partos

The Trinity College Engineering Society has gone from strength to strength this year, with a large programme of events ranging from the socials designed to encourage engineers from all years to meet, to talks from extremely interesting and varied speakers which proved successful in attracting and expanding the horizons of engineers, not only at Trinity but across the university.

Termly social events, in particular the summer barbeque for the end of first year exams, were successful in allowing engineers from all years to build friendships, encouraging help and advice from the older years to those in younger years and creating a family feel for the society. The society also hosted a variety of speakers ranging from recent alumni discussing life after Cambridge, with insight from London to Silicon Valley, to Patrick Bellow (RDI) speaking on Sustainable Architecture and giving a captivating talk on the huge potential for sustainable engineering within beautiful architectural projects. In addition, the society was joined by Mike Salter from the Science and Technology Facilities Council with a

talk entitled “How engineering can tell us what stars are made of?” which really grasped the attention of an intrigued audience. The society was also lucky enough to host two alumni, Prof. Donald Swift-Hook and Dr John Thorogood, who gave talks on Renewable Energy and the Oil Industry respectively, both of which being well received and sparking interesting discussions!

Another highlight was the fourth annual Trinity Engineering Conference, where the fourth-year students gave presentations on their individual projects to celebrate their work so far and enable insight for the younger years on what fantastic opportunities lay ahead in their studies. Following this, everyone enjoyed a fantastic dinner in Hall.

The Engineering Society is extremely excited to have grown so much this year and hopes that it will continue to prosper in future years. It would like to thank the graduating 4th year students for all their involvement with the society and wish them well in their future careers, they will be very much missed! In addition, the society would like to thank the college, especially Professor Nick Kingsbury for all his help!

Trinity College Magic Society

By James Munroe

It’s been a fantastic year for the Magic: the Gathering Society, with more events than ever before and more people attending than ever before. The society exists to play the card game ‘Magic: the Gathering’ in all of its forms, including widely played formats (booster draft, Commander) and silly variants of our own invention. The year kicked off with our Back Draft to the Future; a time-travel themed back draft using cards from the Khans of Tarkir block in a tournament, pitting one parallel universe against another. Each person played with cards drafted by their nemesis in the other reality, in a race to get Sarkhan back to the future. The resulting decks and matches were brilliantly diverse, especially on the inter-dimensional feature table.

The society also exists to make the game more affordable; we’ve started organising our own post-releases, inspired by the pre-releases run by official vendors but at a fraction of the cost. We’ve also continued to run proxy tournaments; our Hand-Drawn Proxy Vintage event used hand-drawn fake versions of cards, showcasing the incredible artistic talent of our members. The Magic society has continued to grow and innovate and I’ve greatly enjoyed being the president for the last two

years. Thanks go to the rest of the committee for organising events, our Senior Treasurer for keeping everything running and our fantastic members for making this society so great!

Trinity College Trinema Society

By Jovan Powar

It has been two years since the founding of Trinema, the college's cinema society, but in truth it was this year when the society truly found its feet, its purpose, and a codified set of secret and arcane rituals – as expected from any reputable assembly of Cambridge students.

Our first year was spent slowly finding out where a cinema society fits into college life. One of the society's founding goals is to promote discussion and enjoyment of cinema amongst members of college, with a focus on independent, arthouse, and classic film. So to begin, we spent two terms putting on screenings in the Winstanley Lecture Theatre, often followed by discussion, invariably selling refreshments. Our programming achieved varying results, oscillating from dizzying successes – our *Rocky Horror Picture Show* event saw a good turnout and a well-fought costume contest, and we almost filled the theatre with *The Grand Budapest Hotel* to, frankly, disappointing failures – a Hallowe'en show had to be cancelled when it drew only two attendees.



With lessons learnt, the Committee came into this year with a clear vision for the society and its place in the fabric of college, and I am extremely proud to say that this vision has undoubtedly been realised. In Michaelmas, we rounded out a small number of well attended screenings with a Christmas show in the OCR, *The Muppet Christmas Carol*. After two years the OCR Christmas show accompanied by mince pies and mulled wine has already established itself as a tradition; a vocal section of the Committee has proposed it be explicitly written into our constitution.

In Lent Term it might be argued that, buoyed by the successes of the previous term or perhaps too much mulled wine, the President threw the still young society and its wide-eyed Committee in at the deep end. A shaky alliance with the Fitzwilliam Museum Society added four events to the termcard, filling out the schedule to an event each week. Still the Committee rose to the challenge, and not only pulled off each event successfully, but was able to organise tributes to Alan Rickman and David Bowie on mere days' notice. The President's highlight of the term was certainly the technical hiccup (during the FMS collaborative series *Art on the Screen*) that led to the Senior Curator of the Museum of Archaeology and Anthropology giving a long talk before an image of a manatee captioned "I'll get some wine".

Easter Term saw the society finally reach its main founding goal: "to provide cinematic experiences beyond simple film screenings". The term began with an evening in the Master's Lodge: a screening of Charlie Chaplin's classic silent film *The Tramp*, with a new score by Gabriel Chernick. The composer and his band performed the accompaniment live alongside the film – no small feat! Surprisingly, the term got better from there. The society had been born in early 2014 out of a handful of students' big idea to set up an open air cinema in the Fellows' Garden. And two years, multiple failed attempts and a surprising number of trips to ScrewFix later, this dream was finally realised in June. Students flocked over the road in their tens – approximately eight tens – for a garden party, and once dusk fell, settled in for a selection of short films, followed by Ridley Scott's "comedy" *The Martian*.

I am immensely proud of the Committee for spinning one somewhat ill-formed idea into a fully-fledged and successful society. I hope that other members of college have enjoyed our events as much as I have, and I hope that the trend we have begun to see of Trinity's film aficionados coming out of the woodwork continues. We now hand over the society's reins to an entirely new Committee for the next year, and I look forward to seeing where they take it.

Trinity College Choir

By Paul Nicholson

With the 'old' Choir only returning from the tour to the USA at the end of September, the 'new' Choir for the year formed for the first time much later than normal, just a few days before the Freshers' Service. We had 12 new singers join the Choir together with a new Organ Scholar, Alexander Hamilton. We also welcomed two new singing teachers, Sarah Fox and Roderick Earle, who join Ann De Renais and Sheila Barnes in teaching the members of the Choir. We are very grateful for all the work they do with the individual students and feel fortunate to have such an eminent team of teachers.

In December, the Choir returned to Korschenbroich, a town near Düsseldorf in Germany, to perform a series of concerts in the town and surrounding area. The relationship between the Choir and Korschenbroich is now over 20 years old and we were pleased to be able to invite dignitaries from the town to visit Cambridge in May and to thank them for their continued generosity in hosting us.

The Choir's annual performance with the Orchestra of the Age of Enlightenment in the Christmas Festival at St John's Smith Square was once-again sold out and well received by the press, the Evening Standard saying that the Choir 'delivered singing of the highest calibre'.

In March the Choir visited two of the College's Livings: St Edith's, Monks Kirby, and All Saints' Church, Dickleburgh. The College pays the costs for the Choir to travel to perform at the Livings, so the churches can make it a fundraising event for the maintenance of the building. Both churches worked hard and sold out the concerts, raising over £8,000 in the process.

A second CD of the music of Herbert Howells – Collegium Regale – was released on the Hyperion label in April and was subsequently nominated for the prestigious 2016 Gramophone Award. This was the Choir's fifth nomination for the award, Gramophone magazine describing it as a 'stunning recording'. In June, the Choir spent a few days in Hereford Cathedral, recording the works of Charles Villiers Stanford (former Director of Music at Trinity), for release in 2017.

The main highlight of the year was the tour to Hong Kong and Australia in the summer, performing 15 concerts over four weeks in all the major cities and

concert halls. There was a large amount of media coverage of the tour, including a number of live radio broadcasts and national TV coverage. Limelight magazine said of one of the concerts: "Trinity College Cambridge is truly the Rolls-Royce of choirs... I have very rarely felt as moved and changed by a performance. This was the kind of experience that not only brought intense pleasure and awe, but also an overwhelming sense of gratitude'.



Full details of the Choir's CD releases, forthcoming concerts, live and archive webcasts of services and YouTube videos can be found at www.trinitycollegechoir.com





FEATURES

HERMES

INSIDE A PIRATE'S COOKBOOK

“... THROUGH A GLASS DARKLY...”

ROBERT SMITH, JOHN HARRISON, AND
A COLLEGE CLOCK

‘WE NEED TO TALK ABOUT ERSKINE’

MY TIME AS ADVISOR TO THE BBC'S
WAR AND PEACE





Features

Hermes

Words by James Mitchell

Music by Jack Thompson

Sung at the Trinity Revue 1959 by James Mitchell

The irregular verse/song (which fits the melancholy music well when you listen to it), concerns the statue of Hermes (or Mercury), in Whewell's Court, Trinity, which vanished overnight early in 1959. The story goes that some heavies from the college rugby XV kidnapped it and hid it in a toilet in Whewell's Court. It was recovered after three weeks, none the worse for its ordeal.

(INTRO) I've been sitting here
Year in, year out.
Shelter is very near.
But I can't move about.

(VERSE) I'm the god of the court.
I'm the Hermes of Greece.
As the years pass,
My trouble increase.
All alone in the court,
Just the butt for your sport.
Oh, can't you leave me in peace?

So pity me on my pedestal.
But don't stand and stare.
Please don't be so very cruel.

I'm the god in the court.
I'm the Hermes from Greece.
Oh, why can't you leave me in peace?

(MIDDLE VERSE) Kidnapped one summer's day,
When the flowers were all in bloom.
I was hidden away
In such a strange little room.

(VERSE) Was the lonliest Greek,
The saddest (?) in years,
Was the Greek god deprived of his peace.
Couldn't move, couldn't speak,
Unrespected antique,
I was given at last my release.

So, smile at me,
For I am happy here.
Don't stand and stare.
Please don't be se very cruel.

Please behave as you ought
Shed a tear, spare a thought
For the day when all humour is ceased (*sic*)
Making fun of the poor god from Greece.

NB: This song became a favourite of one of the then College chaplains, the late Canon Eric James. He had a sculptor make a facsimile miniature of the Hermes statue which he kept on his desk for many years.

The aged recording quality means some of the words on the LP are indistinct and indecipherable.



Inside a Pirate's Cookbook: A Culinary Journey through the 17th Century

By Joe Moshenska (2010)

This is an expanded version of a talk given before an audience at the Sage Gateshead Festival, which was later broadcast on Radio 3.

On the 11th of June 1665, a man named Sir Kenelm Digby died in his rooms on the north side of Covent Garden Square. He had lived a remarkable and varied life. Digby was born in 1603, the year in which Queen Elizabeth I died and was succeeded by James I. When Digby was nearly three years old his father, Everard, was gruesomely executed for his part in the Gunpowder Plot. The pioneering biographer John Aubrey described Everard Digby 'as a gallant Gentleman, and one of the most handsomest men of his time', and 'skilful in all things that belonged unto a gentleman.' He even went to his terrible death with some panache, offering cheery greetings to all of those clustered around the gallows, 'as he was wont to do when he went from Court or out of the City, to his own house in the country'.

Kenelm, Aubrey wrote, closely resembled his father, as he grew into 'a Person of extraordinary strength', 'Gigantique' and endowed with a 'great voice', and powerful enough to lift a fully grown man and the chair in which he was sitting above his head using just one arm. Haunted by this resemblance, he spent much of his life trying to escape from the shadow of his father's treason, even as he clung to the Roman Catholicism for which Everard had died. He moved restlessly between England and the Continent, and interacted with many of the great minds of the age. His friends and interlocutors included the poet and playwright Ben Jonson, the painter Anthony Van Dyck, the philosopher Thomas Hobbes, the mathematician Pierre de Fermat, and, remarkably, both Charles I and Oliver Cromwell. Across his lifetime Digby not only exchanged books and ideas with these luminaries, but wrote original works of theology, philosophy, literature and science, covering a dazzling array of topics.

The inventory of his belongings taken after his death, however, offers a glimpse into one of Digby's more unusual passions. As well as the grand collections of books and paintings that he accumulated, Digby also had an extremely well-

stocked kitchen: he owned four brass skillets and five brass stewing dishes, two pastry coffins, two sugar graters, seven small syllabub glasses, and dozens of other tools and instruments with which he had prepared delicate and hearty dishes until the very end of his life. Two years after Digby's death, his assistant George Hartmann compiled a volume of the recipes that his master had collected, and published it under the title *The Closet of Sir Kenelm Digby, Open'd*.

Digby's name is not widely remembered today, but in his own lifetime he was feted by the pioneering scientist Robert Boyle as 'our deservedly famous Countryman Kenelm Digby,' who ranked with Hobbes and Descartes as one of the greatest thinkers of the era. Digby's dedication to cookery should be seen not as a distraction from these loftier philosophical pursuits, but as the fullest expression of his complex character, and the age in which he lived. Approaching the seventeenth century through Digby's cookbook not only offers a new perspective on this most rich and turbulent period of English history, but encourages us to think anew about the role that food and cooking play in our own lives, and the stories that lurk behind the substances and the processes that we often take for granted.

Digby himself was as varied and eclectic as the recipes in his collection. His interests encompassed philosophy, literature, science, mathematics, but also areas that seem more arcane to modern eyes, especially astrology and alchemy. He studied at an early age with the chemical physician Richard Napier, who believed that he consulted the Angel Raphael in medical matters and who cast Digby's horoscope, which helped explain his love of literature and art and predicted striking encounters with women. Later, at Gloucester Hall in Oxford (now Worcester College) he studied with Thomas Allen, a learned Catholic mathematician and collector of medieval manuscripts, whose reputation as a conjuror was so pronounced that it was said that any visitor to his college rooms 'should meet the Spirits coming up his staires like Bees'. Like his teachers, Digby later combined medical and mathematical interests of a sort that would today be deemed scientific with more esoteric convictions. He participated actively in the scientific revolution and was a founding member of the Royal Society: his paper on the vegetation of plants was the first to suggest that plants absorbed a substance from the surrounding air, and it was the first paper whose publication the Society officially sponsored. Rather less plausibly, he claimed late in life that in his twenties he had been entrusted with the secret recipe for a powder that could cure wounds without ever touching them, by being applied to the weapon that had

cured the injury. There were many versions of this so-called ‘weapon-salve’ current in the seventeenth century, but Digby sought to explain it on an entirely rational basis, arguing that the behaviour of atoms and the theory of vortices developed by Descartes could account for the phenomenon: his treatise on the topic was wildly popular and translated into many languages. (To modern eyes it is rather more obvious why, in an age when mouldy bread and animal dung were used to treat injuries, a wound that was simply cleaned and dressed while the physician fiddled with a secret concoction on the other side of the room had a better chance of healing). Digby treated all of these interests with equal seriousness, and his example is a challenge to modern attempts to distinguish neatly between the obviously rational and protoscientific, and the patently superstitious.

It is his cooking, though, that reveals the connections between the parts of his mind most strikingly, and his culinary pursuits were developed during a peripatetic life. If Digby’s interests allowed him to drift between the ancient and the modern, between science and magic, then he moved with similar ease between nations, living in Paris for much of his adult life, spending extended periods in Florence, Rome and Madrid, and travelling into Germany and Scandinavia. The most remarkable of these journeys took place in 1628, when he was twenty-four years old; he spent the year sailing around the Mediterranean as a privateer, freeing English slaves from Algiers, winning a famous victory over the Venetian ships guarding the Turkish port of Scanderoon, and writing a romance autobiography on the island of Milos. He hoped that these escapades would win him renown, but his standing in the world remained fragile: he was repeatedly denounced, especially by the Venetians whom he defeated, as “This pirate...named Kenelm Digby, knight,’ ‘this audacious pirate,’ ‘the pirate Digby.’

During this voyage, cooking and eating were among the most important ways that Digby strove to weave together the disparate strands of his interests and his identity, and to find a stable place for himself in the world. He missed no opportunity to sample novel delicacies, and to learn innovative and exotic recipes. After he stopped in Algiers the fragile peace that he negotiated between the city’s Ottoman rulers and the English Crown was celebrated with a series of lavish feasts, hosted by the chieftains of the Algerian corsair fleet. To the vast majority of Europeans, North African pirates were nightmarish figures, rapacious devil-worshippers who lived only to snatch honest Christians away to a life of slavery. Digby not only won the respect of these men but dined with them, proudly noting in a letter home to his wife Venetia that ‘att Argires I was treated in such

a noble and sumptuous manner as the say noe Christian hath bin the like.' The city terrified Europeans, but it was also famous for its rich delicacies, from fish, rubbed with pepper and cinnamon and roasted on skewers, to exotic fruit like the watermelon, known locally as *al-battikh*, which according to one European visitor 'hath a taste so delicate and sweete, that it melteth in one's mouth, giving a water as it were sugred, and serve greatly to refresh and digest.' Sampling these riches was Digby's route into the life of the city, which he experienced with a directness afforded to no other European visitor: he tried out the famous steam-baths and met a family of Muslim women who had each been born with two thumbs on one of their hands: 'though it be not easily permitted unto Christians to speake familiarly with Mahometan women,' he proudly wrote, he had 'the opportunity of full view and discourse with them.'

If eating broke down the barriers between Digby and his Algerian hosts, though, he was not interested only in the lofty surrounds of the banqueting hall. Following his triumphant victory at Scanderoon, he went ashore on the nearby Turkish coast and met the local people. He hunted wild boar with them, and, when the wind proved too strong to allow him to return to his ship, he spent the night by their campfire, where he was plied with 'goates, sheepe, hens, milke, egges, mellons, and bread baked as thinne as strong paper.' In these much more relaxed surroundings, in the aftermath of the escapades that would see him labelled a pirate, Digby retained a sharp eye for distinctive local cuisine: the flat bread that he mentioned is known as *gözleme* in Turkey – *göz* means 'eye,' and it earned this name because the bubbles of air baked into the thin bread seemed to wink as it was eaten.

Digby returned to England at the start of 1629, and, thanks to a concerted public-relations campaign, he was able successfully to convince the wider world that he was no pirate but a patriotic hero. He had brought back with him a fine array of ancient statues purloined from Greek islands and a shipment of wine which he had taken as a prize, and these made excellent gifts with which to grease the palms of Charles I and his advisors, and ensure that his version of events won the day. Far from being prosecuted as a pirate, he was rewarded with a position as a chief officer of the Royal Navy. Once he had achieved this position of respectability, he could also make his marriage to Venetia known to the world. They had been childhood sweethearts, separated in their teens but later reunited, and he had married her in secret in 1625. Venetia had been notorious in her younger days, rumoured to have had affairs with various noblemen: Aubrey called her 'that

celebrated Beautie and Courtezane’, and reported in typically gossipy fashion that Richard, third Earl of Dorset, not only kept her ‘as his Concubine’ but even ‘had children by her’. Digby’s mother also opposed the match, for although Venetia also came from a Catholic family, her father had managed to fritter away their entire fortune. It had been the desire to secure his and his wife’s standing in the world, as well as to erase the memory of his father’s treason, that had driven Digby to undertake his voyage, and having seemingly fulfilled these ambitions they seemed set for a life of stability and security.

In May 1633, however, Venetia died suddenly in her sleep. Digby responded with a strange mixture of heartfelt grief and public performance. He had his friend Van Dyck paint a haunting portrait of Venetia on her deathbed before her body was fully cold, while Ben Jonson and his young acolytes, the ‘Sons of Ben,’ penned poems in her memory. Digby himself withdrew for a time from public life, dressing only in black and allowing his beard to grow long. Even these dreadful events, strange though it might seem, were bound up with Digby’s culinary concerns. As Aubrey noted of Venetia, ‘Some suspected that she was poisoned. When her head was opened, there was found but little braine, which her husband imputed, to the drinking of viper-wine. But spitefull woemen would say, that ‘twas a viper-husband who was jealous of her.’ Kenelm was known to have plied her with a cordial containing vipers for her complexion. Far from being controversial this was in fact a fashionable practice, with vipers often included as an expensive and elite ingredient in medicines, especially in Italy. In the popular imagination, though, it became deeply suspect: surely the provision of a poisonous creature’s flesh could only be poisonous. Remarkably, it did not prevent Digby from deploying this particular ingredient. Decades later, just before his death, he was quoted in a book on the ‘Great Cordial’, an infamous cure-all developed by one of his personal heroes, Sir Walter Raleigh, suggesting the addition of ‘the Flesh, the Heart, and the Liver of Vipers’ to the recipe.

In his earlier life and travels, Digby had been attracted to food precisely as a way of drawing together his disparate interests, but now this same prospect became a threat: there was considerable overlap between the categories of food, medicine, cosmetics, and poison in the seventeenth century, with the same ingredients and concoctions ingested for different purposes, and where he had once been labelled a pirate he now risked being viewed as a murderer. Digby’s response was to retire into Gresham College in London, and devote himself to the practice

of alchemy in which Napier and Allen had first instructed him. He harboured the grisly conviction that his wife's putrefying body, which he had obsessively scrutinised following her death, held the secret to alchemical transformation, and became fixated on chemically isolating what he called that 'little substance which virtually containeth in it all the partes of the whole,' and which might allow his wife's identity to persist beyond her death. He later grew convinced that it was possible to resurrect crayfish from their burnt ashes – a practice taught to him by the Jesuit polymath Athanasius Kircher in Rome – and wondered whether similar feats might be performed with humans.

The inventory of Digby's laboratory in Gresham, though, reveals that it contained not only a sophisticated array of furnaces, limbecks and glass funnels, but a 'New Oven to bake pies in.' It would be easy to assume that the modern vogue for 'molecular gastronomy,' the use of the techniques and apparatus of chemistry in restaurant kitchens, is a recent innovation: but in fact it is a return to a much older situation in which chemistry and cookery constantly overlapped. Both were ways of engaging closely with the material properties of particular objects, knowing them intimately, and then altering them beyond recognition, whether this be the artificial gems that Digby made out of glass, the tincture of strawberries he prepared as a cure for his kidney stones, or the countless pies and syllabubs that he concocted. Manipulating substances in this fashion also allowed Digby to transform his own perspective on the world, and he approached everyday objects in a uniquely rich and layered way. To his eyes, for example, a simple chicken's egg could be a scientific specimen, holding the secrets of conception and generation; or it could be an alchemical symbol, 'the philosopher's egg,' from which the philosopher's stone might emerge; or it could be a commonplace ingredient to be cracked on the edge of a basin, mixed with sugar, ginger, and rosewater, and used to make a simple posset. This convergence of cookery and chemistry also allowed Digby to indulge his impish side, and he enjoyed food as theatre as well as sustenance: he observed that placing mercury into a loaf of freshly baked bread made it jump and spring about as if it were alive, and that 'short endes of lute stringes baked in a juicy pye will att the opening of it moove in such sort, as they who are ignorant of the feate will thinke there are magots in it.'

As Digby gradually emerged back into the world following Venetia's death, his path into the upper echelons of English and European society was eased by his love of cooking. He became a close confidant of the Queen, Henrietta Maria, wife of Charles I, who was another keen cook: she taught him how to make

white marmalade and baste roasting meat with egg-yolks. He passed many happy hours learning the favourite cooking techniques of the court's luminaries, but was equally keen to hear of recipes from far afield, that would allow him to recapture the foreign delights of his youthful adventures in the Mediterranean. He carefully transcribed the method for making mead in Moscow, related to him by the ambassador's steward – a complex affair, requiring a series of tubs and sieves, richly spiced with cardamom, aniseed and orange peel. These fascinations never waned, and towards the end of his life he leapt at the chance to meet a Jesuit who had recently returned from China, and who told him a way to prepare tea with eggs and sugar, the first Chinese recipe to appear in England: when drunk, it 'satisfieth all rawness and indigence of the stomach.' The tea was to be steeped in hot water, Digby noted, 'no longer than whiles you can say the *miserere* psalm very leisurely' – an excellent suggestion in an age before egg-timers.

In the 1640s, once the English Civil Wars had broken out, Digby made a number of trips to Rome to try and obtain financial assistance for the King from the Pope. He spent his time there not only exchanging books and alchemical recipes with scholarly friends, but learning a recipe for *Pan Cotto*, as the Cardinals themselves prepared it: this is not to be confused with the delicate dessert *panna cotta*, but was a decidedly sludgy-sounding preparation of bread, grated and boiled in broth. Digby gave his own, recognisably English twist to the recipe, suggesting that if one added 'Two poched eggs with a few fine dry-fried collops of pure Bacon,' it was 'not bad for breakfast.' He was also taught a way to prepare the sugared stalks of mallows, the wavy green plant common in Mediterranean lands, that was not only delicious but 'very cooling and smoothing,' and therefore much drunk in Italy 'in Gonorrhoeas to take away the pain in urining.' In Rome, once again, food and medicine mingled in Digby's mind as he traversed the inner circles of the religious and political elite.

The seventeenth century can often seem from a modern perspective like an age of stark and violent divisions: Protestant vs. Catholic, Christian vs. Muslim, Roundhead vs. Cavalier, science vs. magic, reason vs. superstition. Digby's life, and his love of cooking, give us a very different sense of the period, one which is both more and less like the age in which we live. It seems instead like a time in which people, recipes, and ingredients could drift across national, linguistic, and religious boundaries, forming new and startling combinations and hybrid forms. Digby presents us with a cuisine that is English and not-English at once, shot

through with foreignness from the outset: for him, cooking permitted a way of approaching the world in which baking could rub up against alchemy, or London could fleetingly border on Algiers or China. If his escapades intermittently saw him dubbed a pirate or a poisoner, this was the price he paid for seeking to live a life as multiple and mutable as the ingredients that he put to use.



“... through a glass darkly...”

By Stephen Elliott (1977)

When the Editor first approached me in Nevile’s Court, outside the staircase of my College room, to ask whether I would consider writing a feature for the Annual Record on the joint subjects of science (my research field) and wine (my private passion), I was at first flattered by the invitation and tentatively accepted, but then was unsure as how best to combine these two seemingly disparate topics. However, on reflection, I realized that a common strand might be ‘glass’ and so this is the theme of this short article. It is perhaps not often that one’s professional (research) life and a private interest come into intimate contact in this way – but, in my case, that has been so. First – some words about my day job.

In some sense, I seem to be one of those who embody the Natural Sciences ethos at Cambridge: as an undergraduate at Trinity, I studied Physics for my final year of the Natural Sciences Tripos and then studied for a Physics PhD at the Cavendish Laboratory, before being offered a faculty teaching position in the Chemistry Department, where I currently carry out research mostly in Materials Science (see *Material Guy* by Tony Cheetham, Trinity Annual Record 2015, p. 110). The topic of research which I chose for my PhD was on amorphous semiconducting materials, initially arsenic, perhaps not altogether a safe choice. At that time, in the mid-1970s, there was (and still remains) intense interest in how the presence of disorder in the atomic structure of these non-crystalline solids affects their physical behaviour. The state of matter represented by perfectly crystalline, atomically structurally-ordered materials, the didactic

example used in countless textbooks on solid-state physics, could be described pretty completely using rather simple mathematical theories; but this is not the case for amorphous solids. When I did my Ph.D, the theoretical – and experimental – understanding of the electronic properties of amorphous solids was developing very rapidly; it was an exciting time. One highlight then was the award of the Nobel Prize in Physics to Sir Nevill Mott, at the age of 72 (previously he was Cavendish Professor and was still very active in the Department), jointly with PW Anderson and JH van Vleck, for “*their fundamental theoretical investigations of the electronic structure of magnetic and disordered systems*”. This was in 1977, the last year of my Ph.D.

Amorphous (non-crystalline) materials can generally only be made by circumventing the formation of the more energetically-stable crystalline state by kinetic means. That is, by starting with a high-energy (vapour or liquid) state, and then thermally quenching such an initial phase so quickly that crystallization does not have time to take place, a structurally disordered static configuration of the atoms in the solid can thereby be formed. The term ‘glass’ is reserved for those amorphous materials prepared by melt-quenching; they have, therefore, the structure of a ‘frozen liquid’. The layman’s idea of ‘glass’, however, usually relates only to the transparent material used in windows; this is made predominantly from silica, i.e. silicon dioxide (the main constituent of sand). But, in fact, very many other combinations of different elements can also form glasses by the process of supercooling their melts to obviate crystallization. Thus, various inorganic materials, organic (carbon-containing) polymers (‘plastics’), metal-organic frameworks (MOFs – see Tony Cheetham’s article), and even certain all-metallic alloys, can all form glasses under appropriate conditions. Some of these materials are ‘good’ glass-formers, i.e. they form glasses from melts even at relatively low cooling rates (e.g. a decrease of 1–10 degrees centigrade per second); equally, such good glass-forming materials, once in the glassy state, are very resistant to crystallisation. Other materials (e.g. metals) require millions of times faster cooling rates of their melts in order to preclude crystallization in order to form glasses. Certain materials (including arsenic, and also silicon, the basis of modern-day electronics) are not glass-forming, because crystallization occurs so readily and rapidly – even for very rapid melt-quenching. They can only be made amorphous by quenching a vapour stream of atoms of the material onto a cold substrate, i.e. by a process of ultra-rapid cooling.

Each crystal structure of a given material is structurally unique – there is only one way of arranging its atoms to so as to conform to that structure. But this is *not* the case for amorphous materials. The structural variations inherent in the non-crystalline state – in, say, atom-atom bond lengths or angles between chemical bonds – mean that there is no corresponding unique atomic structure for such materials. Indeed, the structure of amorphous materials can also depend on their preparation history. This aspect makes the study of the structure of such materials both interesting and challenging. I have spent some of my career using a variety of experimental techniques, as well as computational modelling, to study the structure of a wide variety of glassy and amorphous materials.

One particular interest of mine has been the investigation of the influence of light on the atomic structure – and associated physical properties – of certain amorphous and glassy materials. Of course, one optical property, namely transparency, is an essential (passive) property of silica glass which has led to its widespread use as a window material (together with its ease of formability – into flat plates – as well as its stability with respect to subsequent crystallization). Carefully purified, this glassy material is extraordinarily transparent, particularly for infra-red light with a wavelength of 1.5 micrometres (microns): 60% of such incident light is transmitted through a thickness of 10 kilometres! The title of this article – from 1 Corinthians 13:12 – certainly does not apply here. This ultra-transparency characteristic, together with the fact that the glass can also be readily pulled into very thin fibres, kilometres in length but only a few tens of micrometres in diameter, has been responsible for the broad-band internet revolution, wherein huge amounts of information are transmitted around the world via infra-red light pulses passing through such optical-fibre networks. This discovery was the subject of a second Nobel Prize in Physics awarded in the field of glass science, to C.K. Kao in 2009: the Nobel citation read: “*for ground-breaking achievements concerning the transmission of light in fibres for optical communication*”.

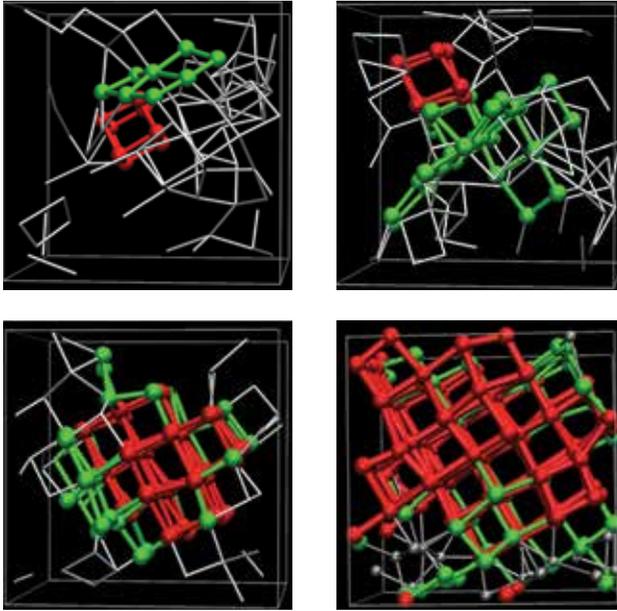
My interest in this area has, instead, been in the *active*, rather than passive, role played by light, i.e. in changing certain properties of amorphous solids. Non-crystalline materials which exhibit these effects include so-called ‘chalcogenides’, because they contain, as one of their atomic constituents, chalcogen elements, e.g. sulfur, selenium and tellurium (chemical cousins of oxygen, a constituent of silica, which lie in the same column (group) of the Periodic Table). Examples of these chalcogenide materials are arsenic sulfide (the crystal form of which is

known as orpiment, named after the Latin *Auripigmentum* and found naturally as a mineral, and which was used as a golden-yellow paint pigment until safer synthetic yellow pigments were discovered in the 19C), germanium selenide etc.. Since there is no unique atomic structure of an amorphous solid and, moreover, since a range of such structures can be generated, depending on the prior history of the materials, exposure of non-crystalline chalcogenide materials to light can cause structural transformations, which can be irreversible or reversible for amorphous or glassy materials respectively, to other non-crystalline structural states. Light-induced transformations between amorphous and crystalline states (in both directions) are also possible. My interest in these intriguing effects was principally in trying to understand why they occur: local structural flexibility associated with the small number of atoms (~2) chemically bonded to chalcogen elements, and peculiarities of the electron bonding in such materials which allow absorbed light further to weaken already weak bonds between groups of atoms, both seem to contribute to the origin of the photo-induced transformation phenomena.

Although of considerable academic interest, these photo-induced phenomena are of limited technological application since the transformations can take a long time (several minutes) to occur. In the last seven or eight years, my interest has therefore shifted to other chalcogenide materials – e.g. germanium-antimony-tellurium (Ge-Sb-Te, ‘GST’) compounds – in which structural transformations can be induced very much more rapidly. The structural transformations here are reversible changes between glassy and crystalline phases; these are therefore referred to as ‘phase-change materials’. It turns out that the crystalline (c-) state of GST materials is near-metallic – i.e. optically reflective and electrically conductive – whereas the glassy (g-) state is semiconducting – i.e. optically less reflective and electrically resistive. Thus, these materials can be used as so-called non-volatile memories for digital information, where binary ‘bits’ of information (0,1) can be written using light or electrical pulses, with the bits being stored as a metastable structural (g- or c-) state of the material, until overwritten. The applied light or voltage pulses are believed to heat the material locally to such a temperature (several hundreds of degrees) that a starting c-state melts and is then immediately quenched to the g-state, or alternatively, a starting g-state then crystallises to the c-state for smaller but longer pulses. Such memory states (‘0’ = g-; ‘1’ = c-) can be read out by recording the corresponding optical reflectivity/electrical resistance of the memory cell. GST materials are seemingly

among a very small class of materials which exhibit such huge contrasts in physical properties between their amorphous and crystalline states. However, this unusual circumstance still would not be technologically interesting were it not for the fact that the transformation times between phases (and particularly from *g*- to *c*-states, which is the limiting time) are so very short for GST, namely of the order of a few tens of a thousand millionth of a second (~10 nanoseconds). Thus, in marked contrast to silica, GST materials are amongst the *worst* of all possible glass-formers – because they crystallise so incredibly rapidly.

Of course, the obvious question arises: why *is* crystallisation so extremely rapid in GST materials? We have carried out a series of advanced atomistic computer simulations to shed light on this aspect, in which the chemical bonding between atoms is calculated as accurately as is feasible; this approach is known as *ab initio* molecular-dynamics (AIMD) simulation. These AIMD simulations are like computer ‘experiments’, in which motions of simulated atoms in a box, representing the material (GST), are calculated for chosen imposed temperature-variation profiles – e.g. thermal quenching/annealing – but they are extremely computationally intensive; such simulations can take weeks, or even months, using the Cambridge supercomputer, just to simulate phase-change transformations of only a few hundred atoms of GST for just a few nanoseconds. However, almost for the first time, in this case, such AIMD simulations correspond to actual length- and time-scales for a *real* material system: the smallest electronic phase-change memory-cell devices are a few nanometres in size, containing several hundreds of atoms, and switch in a few nanoseconds. Using such simulations, we found the main reason why the crystallisation time is so rapid in GST is that the ‘critical’ crystal-nucleus size in this material is extremely small, i.e. ~30 atoms only (see Figure). Only these few atoms need to come together in a series of thermal-fluctuation events in order to form a small crystal-like nucleation cluster which is thermally stable, and hence able to act as a seed for subsequent crystal growth (see Figure); this limiting crystal-nucleation time is therefore extremely short. Data-writing (*g*- to *c*-state) times of tens of nanoseconds (ns) are sufficiently fast for this new non-volatile PC memory technology to be able to supplant existing silicon-based ‘flash’ memory, as used, for example, in USB flash (pen) drives and in smartphones. Indeed, Intel and Micron announced, in July 2015, the launch of a new non-volatile memory device technology (“3D X-Point™”) which is believed to be based on phase-change materials.



The results of a computer simulation of the time-transformation of a model of the phase-change, non-volatile memory material, Ge-Sb-Te, from the glassy state (left) to the crystalline state (right), are shown for annealing at a temperature of 330 °C. The ‘sticks’ represent chemical bonds, and ‘balls’ represent atoms. The final crystal structure is characterised by layers of edge-sharing 4-membered rings (shown in green) and cubes made up from 4-rings (shown in red). It can be seen that the extent of these crystalline structural motifs present in the non-crystalline phase increases with annealing time. The ‘critical’ crystal nucleus (~ 7 cubes) is shown in the penultimate image of this sequence.

The main electronic memory in computers is silicon-based *volatile* dynamic random-access memory (DRAM), which needs to be constantly refreshed in order to maintain the memory state. If a non-volatile replacement could be found, then this would mean that data stored in the memory was retained when the computer was switched off, i.e. the computer would be ‘always-on’, not needing to be rebooted when switched on. There would be significant energy savings, too, associated with not having constantly to refresh the memory state of the DRAM devices. However, even the ultra-rapid g- to c-state intrinsic switching time of GST (~10 ns) is too long for it to be used as a non-volatile replacement

for DRAM, which has a switching time of ~1 ns. In 2012, we invented a method which can be used dramatically to decrease the crystallisation time of GST. A small voltage ‘priming’ pre-pulse is applied to the memory cell, before the main crystallisation pulse, which causes subtle structural-ordering changes in the a-state of the material (as revealed by AIMD simulations), thereby reducing the crystal-nucleation time by more than a factor of 10. As a result of this method, we still hold the world record for the fastest voltage-pulse-induced crystallisation of GST memory cells, viz. ~0.5 ns, well below the critical time needed for DRAM-like operation.

The existing (von Neumann) architecture currently used in all computers has the computation (logic) operations carried out in central processing units (CPUs) which are spatially separated from the memory devices used to store the results of such computations. This separation of computation and memory-storage operations results in timing and energy losses associated with moving information back and forth between CPU and memory. In order to reduce both types of losses, it would be desirable to carry out computational operations, and store the resulting outputs in a non-volatile manner, in the *same device*. Phase-change memory cells can be used to demonstrate this new paradigm in computing. This capability is based on the ability of phase-change memory materials to be programmed, by the application of appropriate voltage-pulse sequences, into a continuum of partially glassy/crystalline states, ranging from fully glassy to fully crystalline, and having a spectrum of correspondingly different electrical-resistance values. We have used the afore-mentioned trick of applying voltage pre-pulses to condition a phase-change memory material, more recently, to perform such ‘in-memory’ logic operations using just a *single* GST non-volatile memory cell. In this approach, pairs of voltage pulses, with two different possible magnitudes (representing inputs of ‘0’ and ‘1’) and with differing time separations, are applied to a single phase-change memory cell. The various inputs (0,0), (0,1), (1,0), (1,1) then create two different resistance states in the cell, themselves also labelled 0 or 1, thereby generating logical ‘truth’ tables. A complete set of Boolean logic operations (i.e. NAND, NOR, NOT) can be carried out, with the logical output being stored in a non-volatile manner in the same GST cell at every stage.

But what of wine? My interest in wine was first sparked when I was an undergraduate at Trinity, and a member of the University Wine and Food Society which organised weekly talks by wine merchants and growers – with suitable

vinous samples. Whilst a graduate student, I was a member of the Cambridge 'blind' wine-tasting team for the annual Varsity match against Oxford which has been run since 1953 (sad to relate, Oxford currently lead Cambridge by 39 wins to 24). For a few years after that, as a Trinity Title A (Junior Research) Fellow, I trained the Cambridge team; I also joined the College Wine Committee at that time. I am presently Chairman of the Wine Committee, responsible, together with other members of the Committee, for buying wines to lay down for grand College occasions (Feasts and Annual Gatherings) as well as for everyday consumption at High Table dinners.

What is the connection between wine and glass? One obvious example is that glassy materials based on silica, with small amounts of sodium, potassium or calcium oxides added to facilitate the workability of their supercooled melts at lowish temperatures, can be readily fabricated into appropriate, optically-transparent 'glasses' to contain liquids, e.g. wine. However, nowadays it is not sufficient for a wine glass merely to be transparent, so that one can say: "*Look not thou upon the wine when it is red, when it giveth his colour in the cup, when it moveth itself aright*" (Proverbs 23:31, King James Version). The *shapes* of the bowl of wine glasses, as developed for example by Riedel, are now tailored for specific *grape varieties* (e.g. Riesling, Chardonnay, (white); Cabernet Sauvignon, Pinot Noir, Syrah (red)) so as to accentuate (or diminish) certain aroma or taste characteristics (e.g. tannin, acidity), although the scientific basis for adopting such specific shapes is not entirely clear.

Another connection concerns the main product of the fermentation of the sugars present in grape must (apart from carbon dioxide gas), viz. 'alcohol' (actually ethyl alcohol or ethanol, C_2H_5OH ; C = carbon, H = hydrogen, O = oxygen). This molecular substance has very interesting thermo-structural behaviour. Pure ethanol is a liquid at room temperature, but if moderately rapidly cooled, at a rate of just a few °C per minute, to below its crystallisation temperature (-114 °C), the supercooled liquid transforms to a glass at the glass-transition temperature of -177 °C. In this structural state, both the centres of mass and the orientations of the linear ethanol molecules are (pseudo-)randomly distributed. However, this material can also be quenched into disordered *crystalline* phases, in both of which the molecular centres of mass are located on a structurally-ordered crystalline lattice: in one (high-temperature) phase, the molecules freely rotate about their centres of mass ('rotator' phase, RP); in the other (low-temperature) phase, the molecules are quenched into random orientations, although the positions of the

molecular centres of mass are still structurally ordered ('orientational glass', OG). It is very interesting that the transition between the OG and RP phases occurs at the *same* temperature as the conventional glass transition (Miller *et al*, Physical Review, **B57**, R13 977 (1998)).

I have never done research on this particular alcohol – apart from the obvious extensive sampling required to buy wines for the College. But I have done some work on related molecular alcohol systems, namely *sugar alcohols* (so named because they taste sweet), one of which is glycerol (or glycerine, $C_3H_5(OH)_3$); this is the third most extensive fermentation product of grape sugars (i.e. glucose) after carbon dioxide and ethanol. Glycerol has been implicated (incorrectly) in two aspects of wine appreciation.

First, it is often deemed to be responsible for the 'tears' or 'legs' which occur on the inner surface of a wine glass, above the level of the wine, especially after it has been swirled, because glycerol is a rather viscous liquid. In fact, this is not the main reason, not least because generally the concentration of glycerol arising from fermentation is too low. The actual cause is the 'Marangoni effect', the flow of a liquid along a surface caused by spatial variations in the surface tension. Since pure ethanol has a lower surface tension than water, preferential evaporation of the alcohol (which has a higher vapour pressure than does water) from the film of wine on the surface of the swirled glass leads to more liquid being drawn up from the bulk of the wine, which has a lower surface tension because of its higher alcohol content. The wine therefore moves up the side of the glass and forms droplets that then fall back under their own weight, creating the legs/tears. For high alcohol-content wines, this effect can take place even without swirling.

Glycerol has also been implicated in the smooth, velvety or silky 'mouthfeel' (horrible word) of certain wines. Again, this is generally not the case, since there is so little glycerol (very much less than ethanol) produced as a fermentation by-product for most wines. However, in a certain class of wines, a relatively high concentration of glycerol is formed which does produce a viscous sensation, namely in sweet dessert wines made from grapes that have been attacked by the 'noble-rot' fungus, *Botrytis Cinerea* (known as Pourriture Noble in France, Edelfäule in Germany, Muffa Nobile in Italy, Aszúsodás in Hungary). Under appropriately humid conditions, ripe grapes are attacked by this fungus, which produces two effects: it punctures the skins, thereby allowing water in the grapes to evaporate, resulting in shrivelled grapes having a much higher concentration of sugars; at the same time, the fungus causes a biochemical reaction with

glucose sugar, producing a high concentration of glycerol, as well as much smaller concentrations of numerous complex flavour molecules. This natural process is the basis of the production of classic ‘botrytised’ dessert wines, such as Sauternes (made from Semillon and Sauvignon Blanc grapes) from France, trockenbeerenauslese wines (Riesling) from Germany and Austria, and Tokaji Aszú (Furmint, Hárslevelű) from Hungary.

My scientific research on sugar alcohols, with the general chemical formula $C_n H_{n+2} (OH)_n$, i.e. glycerol ($n = 3$), threitol ($n = 4$), xylitol ($n = 5$), and sorbitol ($n = 6$), has, it will now not be a surprise to learn, been on the behaviour of the glassy behaviour of these materials, which are characterised by intermolecular hydrogen-bonding between H and O atoms. With colleagues in the Department of Chemical Engineering in Cambridge, we have measured absorption spectra of these materials in the terahertz region of the electromagnetic spectrum beyond the infra-red region, i.e. for wavelengths of ~ 0.1 mm (or ~ 100 microns). Such spectra provide much information on the intra- and inter-molecular motions (vibrational and rotational) of these molecular systems, and how such motions change in the supercooled-liquid region as they transform to glasses.

Let me finish by continuing the quotation of the above Proverb, ‘*Look not thou upon the wine when it is red...*’ as a salutary tale of the perils of studying glass-forming alcohols: “*At the last it biteth like a serpent, and stingeth like an adder. Thine eyes shall behold strange women, and thine heart shall utter perverse things*”.



Robert Smith, John Harrison, and a College Clock By Graham Chinner (1972)

During the mid-18th Century the Master and Seniors of Trinity found themselves faced with a major degradation of the College fabric. Much of the Great Court facade, thrown up hurriedly and cheaply for Thomas Nevile 150 years previously with soft local clunch, was now crumbling and the cloisters of part of his eponymous Court threatened imminent collapse. Compared with such meaty matters an increasing malfunction of the College

clock (installed for Bentley in 1727) might have seemed a minor irritation: none the less the Master, Robert Smith, approached John Harrison, clockmaker of genius, for a remedy.

Harrison and Smith must first have met sometime prior to 1735 when Smith was one of six Fellows of the Royal Society (led by Edmund Halley the Astronomer Royal and George Graham the great clockmaker) who supported a sea trial of the first sea clock H1, and sent Harrison a certificate of fulsome commendation with encouragement to continue with his work. Smith, as Plumian Professor of Astronomy, was an ex-officio Commissioner of the Board of Longitude which at its first meeting in 1737 granted Harrison funds for work on his second sea clock H2.

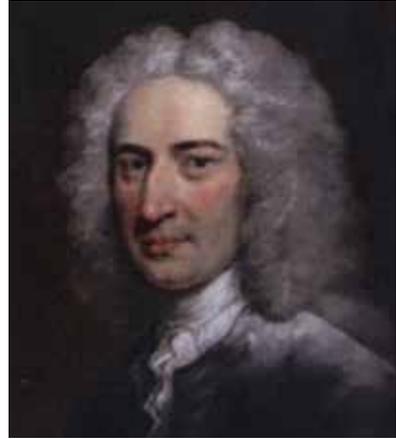
In the course of a friendship which had grown up between them, Harrison and Smith discovered a mutual interest in musical harmonic notation. Smith published his book on the subject *Harmonics, or the Philosophy of Musical Sounds* in 1749. This Harrison considered to be a breach of an unwritten agreement between them that he be given first opportunity to print his views. Further, he regarded the book as plagiarism.

“My friend Dr. Smith (Master of Trinity College, Cambridge), not knowing that I had any Thing to do in that Matter [i.e. Harmonics], tho’ he and I had been pretty intimately acquainted for two Years, and had known each other much longer, and as Mr. Graham afterwards told me, that he(the Doctor) had then had his book upon....the Scale of Music under Hand for longer than that time, but .. finding reason to think, from or upon an accidental Conference which happened betwixt him and me, that I was in the right, said that he would drop his Book, and that I might make the best of mine, but instead of that, did some Time after, alter... what he had grounded his work upon, and so as to come as near to me, as....Demonstration would let him, and then published it....”

In an introduction to the book a sort of acknowledgement was given by Smith to his friend, but in so obfuscating and condescending a tone that Harrison, ever alert, took slight. Doubtless anticipating trouble, Smith had tried pre-emptive mollification with an encomium praising “...the accurate hand of Mr. Harrison, well known to the curious in mechanics by his admirable inventions....” and forecasting his longitude achievement – quite irrelevant to the matter in hand. Harrison was hardly to fall for such diversionary flattery: “..desperate priestcraft this, O fie!” He considered his empirical approach to harmonics gave results as valid as Smith’s sophisticated analysis, and would not be patronised.



John Harrison ca. 1775.



Robert Smith ca. 1740.

Of the estrangement that ensued, we have only Harrison's account, in his memoir *A description concerning such mechanism as will afford a nice, or true the Mensuration of Time...* published in 1775, some seven years after Smith's death and a year before his own. Lacking formal schooling, Harrison often found it difficult to express non-technical ideas clearly on paper. However in this book, peppered with spasmodic irruptions of often incoherent indignation, there is no mistaking a depth of emotion still raw and untempered even after a quarter century's lapse and the ultimate triumph of recognition and remuneration. There is bitterness, scorn, above all anguish for a friendship cut short: "*.....as I was certainly in the right, and standing to my Integrity I lost his friendship, and indeed it was with Tears; but this is the way with University-Men, they want to suck the virtue out of every Body's Works, and then to call their own...*". It may be that the rather ill-assorted friendship meant more to the humbly born penurious genius than to the well-connected Master, lodged secure in his status and stipend.

Nonetheless it seems insensitive of Smith, so soon after the hurt, to have sued for help. Writing in retrospect, Harrison certainly thought so ("*...a professor, as great as any of the rest [i.e. of the Longitude Board], and who rudely made application to me for a clock...*"). So why, at the time, did he entertain Smith's request? He may have wished it as an olive branch from the Master. He was however at the stage of abandoning development of his cumbersome sea clocks to the pursuit of the watch format which, with its rapidly oscillating balance wheel, he would

show (with H4) was the solution to compact precision timekeeping at sea. He must have told Smith that he could not make a new clock, but would try to fix the old one. After examination (at the College?) he designed a new escapement mechanism in time for the clock to be sent to London for modification in 1755 by the fine London clockmaker William Smith (whose sumptuous brass clock for George III's observatory at Kew now graces Osborne House). The Junior Bursar's Day Book for 1756 records the payments under "Clock":

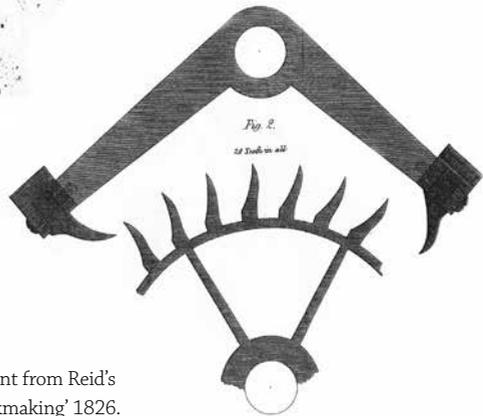
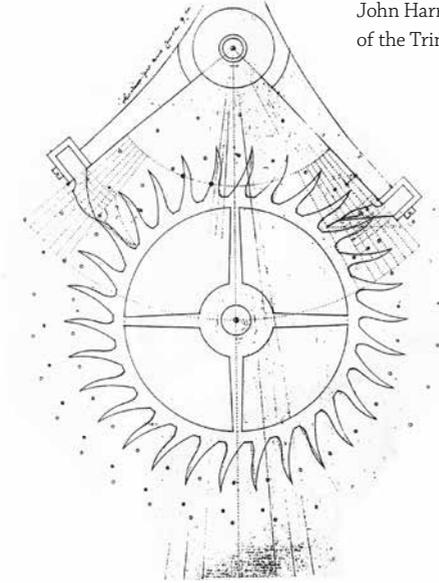
Feb. 20th Pd to Mr. Gillam for carriage of the Clock to London and retro.
£2 9s 6d

Oct. 12th To the Master Mr. Harrison's Bill for drawing the pendulum
Wheel etc. £3 3 0

Perhaps because of the heavy expenditure on concurrent substantial rebuilding in the College Courts, Trinity seems hardly to have proved, for some creditors, a prompt payer. William Smith, whose plate "W. Smith 1755" is still to be seen nailed to the clock case in the tower, had to wait for settlement of his £14 bill for "work done on the clock" until October 1757. A related payment of £3-19s to Samuel Bloom was possibly to the instrument maker who executed Harrison's design in brass and steel.

"Friendship, once ended, cannot be mended." Any rapport between Smith and Harrison arising from the clock was short lived, as the cause of the rift remained unresolved. Towards the end of the 1750s some change in sentiment became apparent in the Longitude Commissioners, although financial support for Harrison continued steady. However Harrison's staunch supporters, Graham and Halley, were dead: the latter's successor as Astronomer Royal, James Bradley, was keen on the lunar method which, with much more accurate star charts now available, was becoming a more feasible proposition. Although ineligible as a public official, Bradley was said to have had an eye on the Longitude prize for himself: by an irony of fate, he had had an acolyte in Nevil Maskelyne, an undergraduate at Trinity. Many years later Maskelyne was to succeed Bradley and in that office was materially to prolong Harrison's agonised struggle. Before then, however, in 1756, election as Trinity Fellow put Maskelyne into an ideal position to weasel the now ailing Smith out of his Harrison allegiance. Thus may have been set the sad little epitaph to a friendship: "*..... this was not the worst Jarr that happened between him and me, for, as I could not adhere to him in this case[i.e. harmonics], he afterwards turned from being my friend in the Longitude Affair, to his being therein no better than an Enemy.*"

John Harrison's drawing
of the Trinity Escapement.



Trinity Escapement from Reid's
'Treatise on Clockmaking' 1826.

The remedy for the Great Court Clock prescribed by Harrison comprised a few small modifications (e.g. incorporation of cycloidal cheeks to control the pendulum's arc) and a new recoil escapement. Harrison's drawing shows a grid of small circles which locate the centres of the circles defining the precise curvature which he wished to give to each tooth of the wheel. A novelty was removable pallet nibs. Turret Clock specialist Chris McKay (in *Longitude's Legacy*, 2015) comments "[the drawing shows] a pallet frame with a slot at each end into which the pallet nibs were inserted. In this way the nibs could be more precisely shaped and hardened as though they were glass. From the construction lines on the drawing,

it looks as though John was trying to achieve an identical amount of recoil on each pallet, something that the conventional design of a recoil escapement usually fails to achieve. William Smith appears to have been sufficiently impressed with the design to have used this escapement in further turret clocks that he produced. It also raised interest amongst other contemporaries. The Johnian William Ludlam, who succeeded to the Plumian Chair in 1760 after Smith had resigned it, gave a long technical description in a letter to a friend which concluded “Pray, show Mr. Kendall this curiosity” (Larcum Kendall, whose exact copy of Harrison’s H4 watch-timekeeper enabled Captain James Cook on his second voyage (1772–75) to make the first accurate charts of Pacific islands). This letter, together with engravings of the Trinity and other Harrison’s escapements, was published by Thomas Reid, *Treatise on clock and watchmaking*, (Edinburgh, 1826). Ludlam also included an article on the pallets in his account *Astronomical Observations made in St. John’s College Cambridge...*(Cambridge, 1769), concluding that the design “*was the result of sound reasoning, though perhaps not dressed out in all the formality of theorems and corollaries*”, an epitome perhaps also for the Harmonics studies that meant so much to Harrison, but cost him a friend.

With Late Georgian merging into Victorian Britain, Harrison’s renown seems to have faded from public consciousness. Although virtually every vessel on the High Seas now boasted a chronometer based on his triumph, advances in horology had supplanted many Harrison innovations and modified others beyond memory. Not a little of Harrison’s eclipse was due to the influence of the polymath Edmund Becket Denison (Trinity, 1835–38), who slightly dismissed him as “*a carpenter turned clockmaker who received government money for a marine chronometer*”. Becket Denison (aka Sir Edmund Becket, later Lord Grimthorpe) may not have received government money, but he spent lots of it in the construction of his ground-breaking design for the Westminster Great Clock and “Big Ben” bell. Grimthorpe, of course, was aware of the Trinity clock and had denigrated it- whether or not because of the Harrison contribution is unclear. However after he died in 1905 a codicil to his much revised will bequeathed £500 to Trinity for a package of clock-tower “improvements”: recasting the bells; an idiosyncratic weathercock; a new numeral-free, non-skeletal dial; and replacement of the denigrated 1727–56 clock with a timepiece to the Grimthorpe design. Previously there seems to have been little dissatisfaction with the old clock, but now after receiving a judgement that it was held together merely by “bits of wire and pieces of string”, a majority of the Council favoured acceptance of the bequest. As usual, a flurry of flysheets

followed. That from Council dissidents Fletcher and R.V. Laurence, produced an independent assessment that any deficiencies in the clock could readily be made good at minimal expense- perhaps £200. Further, it asked whether the College should submit to direction by the egregious Grimthorpe, who had not previously shown himself a friend of the College and whose taste was questionable (citing his regrettable “restoration” of St. Alban’s Abbey). None the less, after the Senior Bursar McCleod Innes had managed to shear off the more eccentric of the bequest conditions, the Council voted for acceptance. The Harrison revival was yet to come, and no move appears to have been made to preserve our minor example of his ingenuity. Accordingly the old clock, condemned as too worn for repair, was hustled off, presumably for scrap.

Over the centuries Trinity has been credited with many singularities, often fancifully. It seems certain, however, that ours is the only College in Cambridge to have trashed a clock with an escapement mechanism designed for it by “Longitude” Harrison.

I am grateful to Jonathan Smith for sharing his expertise with the Archives, and to horological authorities Chris McKay and Andrew King for correction and advice on clock matters and Harrison history.

‘We need to talk about Erskine’

By Boyd Hilton (1974)

In the history of most venerable institutions there are episodes that hover in the memory, beneath the radar but never completely forgotten. In Trinity’s case one such was the outburst of high jinks known as the ‘Gordon Riots’ in 1892. That label originally referred to the nine days of violent protest – essentially an anti-Catholic émeute – that terrified London in 1780. What happened in Trinity over a century later was more like a jolly than a riot, but it acquired the same name owing to the identity of the main protagonist.

George Hamilton-Gordon – or Gordon, as he was known in college – was an amiable and eccentric Wykehamist in his final year, a prominent member of the First & Third, and a self-styled ‘blood’ or ‘hearty’. Photographs suggest a pugnacious face and bulldog chin. He later succeeded as Baron Stanmore and became a minor liberal politician. There was certainly something very political about his ambition to win the allegiance of the junior members, and also about his chosen method, which was to infiltrate a somewhat somnolent debating



The Gordon Riot in Great Court.

society known as the Magpie & Stump, and, having done so, 'to Make the Society the Centre of Trinity', with the eventual hope of turning it into a Council of Undergraduates. The Magpie's usual membership was between twenty and thirty, and mostly made up of scholars, but at the 546th meeting, held on 12 February 1892, friends of Gordon unexpectedly put up twenty-seven new members for election. 'The Rump of the Old Society', as the beleaguered sitting members came to be called, tried desperately to rule that these new applicants were ineligible to join, but to no avail, for they had failed to anticipate democracy by show of hand. According to the magazine *Granta*,

It seems that a reform party has arisen in the Magpie & Stump – a Debating Society thirty years old, which has fallen into the hands of an insignificant clique. Its ranks have been decimated by Bores, and its President elected by a solid vote of 19 Lacrosse players. But the close time for Bores is at an end. Last week fifty members, pledged to reform, were elected amid wildest confusion. All the Bores were up in arms, including the Caledonian Bore, the Great Choke Bore, the Repeating Small Bore, the Wild Black Bore, the Bristly Bore, the Smooth Bore, the Fur Bore, and the Aurora Borealis. They blackballed so freely that the usual stock of marbles had to be supplemented with chocolate creams which the President ate while counting. The house revolted and voted by a show of hands. The Rump showed its independence by black-balling the smartest, the smallest and meekest man on the card. When my informant left, the Bores were howling like wild beasts and the Reformers breaking up chairs in grim silence.

The dam having been busted, another 62 new members were proposed at the following week's meeting, and a further 138 in the week after that (and this at a time when the total number of undergraduates was only about 620.

An extended membership having been secured in time for the impending presidential election, Gordon was at once proposed. His cry was for 'Reform and Regeneration', defined as cheap Hall dinners, the right to smoke anywhere in college, a free billiard room in the Library, a swimming bath in the Cloisters, reduced room rents, 'weekly analysis of the SOUP by an experienced Committee', 'the limitation of MUSICIANS to the Spittoon', and whiskey instead of coffee to be served at Society meetings. Standing against him was the official candidate R.E. Childers who, so his supporters said, had 'filled the offices of Secretary and

Treasurer with dignity and tact'. He was a product of the former East India College at Haileybury, which helps to explain his strong imperialist convictions and dogmatic opposition to Irish Home Rule. It may be that, in stating his claim on the hustings, Childers realised that he could not outbid Gordon in terms of razzmatazz, and so deliberately decided to pitch for the po-faced vote, but it seems more likely that Childers was simply a very priggish and conventional young man. He disparaged Gordon by pointing out that 'my work for the Society has been somewhat more laborious than that involved in nominating candidates for membership'. He promised to 'support Constitutional usage and the true welfare of [the] Society". He disdained Gordon's call for changes of a sybaritic and destructive nature, and promised to resist the thin ends of any reforming wedges (thus verbally anticipating Cornford's *Microcosmographia Academica* by a decade and a half). He was, however,

ready to support any well-conceived measures of Reform for extending the intellectual advantages of the Society to a wider circle, and thus ameliorating the condition of such bodies as the Athenaeum and the Pitt. At the same time while interested in promoting habits of regular mental discipline I look for improvement more to the spread of education and the force of example than to any cataclysmic reconstruction of the Society's governing body.'

This was the first presidential contest in the Society's history, but even more disconcerting for traditional-minded members was the stridently populist nature of the campaign run by Team Gordon, a four-man body that (it is no surprise to find) included Bertrand Russell, then in his second year. It undoubtedly succeeded in controlling the narrative, as a correspondent in the *Cambridge Review* explained: "The battle was long doubtful ... until Mr Gordon entered the field with a curious and antiquated piece of artillery known as a slogan, the sound of which so terrified the enemy that they broke and retired defeated' (*Cambridge Review*). The 'Bloods versus the Smugs' just about sums it up, though there was also a topographical dimension: Nevile's versus New Court. Scores of intoxicated Gordonistas backed up their leaders's message in banners, flysheets, and posters. 'Which do you prefer? Mr Gordon's Common Sense, or the intolerable Gas of Mr Childers.' 'GORDON'S PILLS PURIFY THE BLOOD, REMOVE FLATULENCY, REMOVE ALL OBSTRUCTIONS. PURGE! PURGE! PURGE!' The recent mass elections to the Magpie & Stump had, they claimed, raised 'the proportion of members who SHAVE from 20 to 80 per

cent' (a mouchtache being seen by many 'Bloods' as the sign of an effeminate aesthete). 'Vote for GORDON the People's Friend' was their riposte to the opposite camp's assertion that Childers was 'the Constitutional Candidate and Legitimate Successor'. If Childers resembled the Dauphin, Louis XVII, mused the *Cambridge Daily News*, the Gordon 'coterie clearly answer to the Jacobin Club'. It was mainly good clean fun, but with some nasty undertones at the edges. 'Pause before you commit the College into the hands of the Jews by supporting Childers'. The word 'repudiated' appears alongside this flysheet in the Archives, suggesting that the authorities properly ordered it to be withdrawn, though it is probably fair to add that the word 'Jew' was often used as an indiscriminate term of opprobrium, much like 'Lacrosse player', and not with any particular religious or racial intent.

M. & S. ELECTIONS.

VOTE

FOR

GORDON.

What the Reform Party has done.

IT HAS RAISED--

- I. the MEMBERSHIP from 100 to 300.
- II. The MORAL TONE from 17 below Zero to 90 in the shade.
- III. The proportion of members who SHAVE from 20 to 80 per cent.

WHAT THE REFORM PARTY WILL DO.

- I. Make the Society the Centre of Trinity.
- II. Make the Debates the best in Cambridge.
- III. Abolish the GAS MONOPOLY.
- IV. Change the DEEP C. FISHERIES into the GORDON BOYS' HOME.

VOTE FOR GORDON!

As not much was happening in Parliament that month the press, both local and national, took up the story of the election itself. 'It is doubtful whether London was half so excited over the County Council election as has Cambridge been over its contest during the past week' (*Pall Mall Gazette*). 'The excitement on Friday was intense; the clubs, streets, and shops were covered with placards. Mr Gordon appeared in red¹ and Mr Childers in blue, and ribbons were worn by both sides, and a large crowd collected in Trinity in the evening' (*Oxford Magazine*). 'Not only are the gyps and bedders busily engaged in canvassing, but the Master and Fellows appear to share in the general delirium. Every window is draped with the

1 Other sources pronounced it pink.

colours of one or other of the candidates' (*Cambridge Daily News*). 'The Athenæum brought up its forces to assist Mr Gordon, who is said to be no great speaker, but was apparently expected to play the bagpipes in kilts from the presidential chair. On Friday night, just before the voting, Mr Childers addressed a mass-meeting of constituents from his windows in the New Court, fireworks and other alleviations of the drudgery of college life enlivening proceedings' (*St James Gazette*). 'Then came the polling in two of the Trinity lecture-rooms. The scene was one of the wildest confusion, and the poll was taken to the sound of bugles and post horns and in the midst of squibs and crackers. The result was that the new party won by 127 to 103, and Mr Gordon is the new president. A great triumph for the Bloods, who mustered in great force to defeat Mr Childers' (*Pall Mall Gazette*). The Dean and Tutors seem to have handled the situation with aplomb. An attempt in the early evening 'to get rid of the placards by an individual don was frowned upon by the more responsible authorities' (*ibid*), who held their fire until after the votes had been counted. 'There then seemed a chance – the hour waxing late – of more serious developments; but authority, till then quiescent and now acting with the tact and firmness so well-known in the Senior Dean,² put an end to further discussion'. For their own part the undergraduates, amazed perhaps at having got away with so much mayhem for so long, rapidly detumesced. Trinity, someone observed, had never been so divided and yet never so united.

'Over a pint of self-importance has been taken from [Mr Childers's] head, and a quantity of self-esteem from the region of the pericardium', gloated one victory banner. 'With the deepest regret I have to announce the disintegration of Mr Childers.' Yet many were surprised that the result was so close, given how much noisy enthusiasm there had been for Gordon. As the two candidates shook hands it was agreed on all sides that Childers was a graceful loser, while Gordon proved generous in victory. He immediately created a new post of Deputy-President for his defeated foe to occupy, and in the following Michaelmas Term Childers succeeded effortlessly to the Presidency himself.

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2 The Revd. Reginald St. John Parry. The sources for this account are to be found in a box in the Wren Library, Ms O. 17.20. C.L. Ferguson, *A History of the Magpie & Stump Debating Society, 1866–1926* (1931), pp. 17–34, places the episode in the context of the Society's early history.

According to one of his Trinity adherents, George Hamilton-Gordon was bound to become famous. 'He is a born politician, and probably, young as he is, knows more about the English Navy than any other man living.' Yet no one has written his biography, and probably no one has ever mused about his influence on the development of the English navy. By contrast, Childers's life has been much studied and reflected on. Biographers pass very briefly over the 'Gordon Riots', and over his Cambridge experiences generally, understandably not seeing any great significance there. After graduating in 1893 he took up a clerkship in the House of Commons, but found the routine business stifling and volunteered as a driver in the South African War of 1899–1902. That war virtually divided the nation into imperialists and Little Englanders, but it led to Childers becoming inwardly conflicted. His patriotic fervor as a Briton was redoubled, yet his respect for the courage of the rebel Boers made him ambivalent about an empire he had once unthinkingly celebrated. In 1903 he published his enduringly popular masterpiece, *The Riddle of the Sands*, in which the narrator sets out with an acquaintance in a sailing boat to explore the waters of the Frisian littoral, only to uncover evidence of the Kaiser's secret navy waiting for its opportunity to invade Britain's shores. Much more than merely a *Swallows and Amazons* for grown-ups, it ended with a call for 'training all Englishmen systematically either for sea or for the rifle'. More than any other single book it contributed to a tidal wave of alarmism that focused on Germany rather than France as posing the greatest peril to the nation, and it played a role in persuading an avowedly pacific Liberal Government to build naval bases at Invergordon, Rosyth, and Scapa Flow. Later, when war against Germany came on, Childers served with distinction, earning a DSC.

Meanwhile in 1914 he took his first steps in the cause of Irish independence. Angered by the fact that so many of the English elite were conniving in Protestant gun-running to Ulster, he embarked on a clandestine voyage to ship 900 rifles to Dublin Bay for the use of a nationalist group known as the Irish Volunteers. It was a mainly symbolic gesture, but one that has been described as 'a turning point in the creation of an Irish republic'. (Intriguingly the *nom de guerre* adopted by Childers during that adventure was 'Mr Gordon'.) Later, in a gruesome denouement, Childers took Ireland's side in the Anglo-Irish war of 1919–21 and afterwards De Valera's republican side in the Irish Civil War, a choice that led to his execution by the Provisional Government of the Irish Free State in November 1922. His almost supernatural grace on that occasion became legendary, especially his insistence on shaking the hand of every member of his

firing squad. Had he survived another year he would probably have served as an English Protestant minister in de Valera's Free State Government. Instead his son, Erskine Hamilton Childers, who matriculated at Trinity in 1924, became the fourth President of Éire in 1973.

As will be clear from this brief résumé, Childers's failure to become President of the Magpie & Stump is hardly a prominent landmark in his life story, but the episode is interesting because it reveals, not only his stoicism in defeat, but just how smug and conventional, boring and unimaginative, even risible he had been as a youth, and how different from the free spirit he was to become. If any event changed the course of Childers' life and personality it was probably the Boer War, and if any self-analysis is to be had respecting that change, it is likely to be found in *The Riddle of the Sands*. After all, the real point of that novel is not the derring-do, the spying, the invasion scare, the somewhat superfluous romantic subplot, the momentary frisson on catching a glimpse of the Kaiser, nor even, more generally, the call of the running tide. The real point is the unstarching of a hopelessly stuffed shirt. In *The Riddle* the narrator Carruthers is an intellectually and emotionally constipated Oxford graduate who takes up a pointless berth in the Foreign Office, where he performs routine duties of minimal significance amid a round of smart parties given by Society hostesses who can hardly tell him apart from all their other guests. Then one vacation, much against his will, he is inveigled by an uncouth and possibly autistic Oxford contemporary called Davies, whom he had once mildly liked but with whom he has nothing in common, to undertake an expedition to the Schleswig-Holstein coast. Critics have argued over whether Childers is Davies or Carruthers or a bit of each, and many have suggested that Davies should be seen as the real hero of the book, which makes sense in personality terms, since what Carruthers comes to admire in him are qualities of strength, courage, sincerity, tenacity, and absence of 'didactic pedantry'. But, as the latter phrase suggests, it is just as plausible to regard Davies as a plot device or decoy, enabling Childers to explore the conflict between what Carruthers started out as, and what he became.

When Carruthers receives Davies's telegram inviting him to join the cruise, he finds it most unwelcome, but reflects later that it was the work of 'a friendly providence' and 'marked an epoch for me'. Even at the time it gave him an 'inexplicable lightening'. Once on board, he is put into a thoroughly bad temper by Davies' callous indifference to creature comforts and fashionable etiquette, and



Childers.



Gordon.

yet, drying down after his first swim in a beautiful Norwegian fiord, ‘as I plied the towel, I knew that I had left in those limpid depths yet another crust of discontent and self-conceit’. So began ‘a passage in my life, short, but pregnant with moulding force, through stress and strain’. When Davies finally admits that he wants them both to embark on a dangerous adventure, Carruthers is horrified yet reluctantly agrees, on the grounds that ‘Romance’ in the guise of a ‘gay pursuit of a perilous quest’ might help to ‘cure’ his own congenital ‘morbidity’. And gradually, as the plot unfolds, he acquires ‘an unsparing discernment’ into his own life ‘of which I should have been incapable a month ago’, a discernment founded in disgust at all ‘my’*précis* writing, and cigarette smoking, my dancing, and my dining’. Ultimately these few weeks of ‘toil, exposure, and peril’ awaken Carruthers to the imperatives of commitment, idealism, action, and life-force. Why did Childers choose the appellation ‘Mr Gordon’ as his cover when he entered on his own real life of espionage in 1914? It may be fanciful to suppose that he was consciously or otherwise identifying with the man whose superior will power had mugged him so spectacularly in the battle of Magpie & Stump, but he was clearly now on the side of bloods rather than smugs.³

³ Childers’s decision in 1905 to name his eldest son Erskine Hamilton was presumably in honour of his father-in-law, the American Dr Osgood-Hamilton, rather than a tribute to his old Trinity nemesis. Still, it would be nice to think that the irony was not lost on him.

De Valera said that Childers ‘died the Prince he was. Of all the men I ever met, I would say he was the noblest.’ Yet he was regarded as a traitor by most of the English and by half the Irish. Churchill pronounced him a ‘strange being, actuated by a deadly and malignant hatred for the land of his birth’. That was clearly way off beam, especially as Childers’s treachery was in plain sight, unlike that of the so-called ‘Trinity spies’.⁴ Churchill’s more mature and generous (though also more ambiguous) judgment was that he was ‘a great patriot and statesman’. However one looks at it, Childers was remarkable as much for his domestic virtues and public valour as for his literary skills, and yet he is nowhere commemorated in College, and very rarely so much as mentioned within our walls. We really do need to talk about Erskine.



My time as advisor to the BBC’s *War and Peace* Dominic Lieven (2011)

I saw my role as historical advisor to *War and Peace* as belated compensation for the fact that my career as a film-star had begun but also finished early. Aged three I was a blond bombshell in a mid- 1950s heart-throb called *A Town like Alice*. My co-stars were Virginia McKenna and Peter Finch. Told that I was the male response to Shirley Temple I became so bumptious that our German au pair once put me in the coal cellar to cool off, something my English nanny saw as a worse German atrocity than two world wars. But it was less bumptiousness than total inability to stop talking which finished off my hopes for a career in film. Even poor Virginia McKenna was deployed in desperate efforts to shut me up: the kindest of film-stars, she did this by feeding me chocolate and buying me Donald Ducks and Mickey Mice. The film was about mistreatment of British civilians by the Japanese after the conquest of Malaya in 1941 and I was supposed to be dying from misery and malnutrition. So the endlessly talkative small boy with his cheeks stuffed with chocolate was the director’s despair. Even in later life I was

4 Another irony is that Childers sent his son to Gresham’s School, which also became known as a nest of spies and ‘commies’, including notably Maclean and Klugmann.



Young Lieven in the prison camp.

never really able to exploit my fame as a film-star. Having acquired a Japanese wife, showing *A Town like Alice* to guests would have been tactless. When I tried to put clips on the website after becoming head of department at the London School of Economics I was told that a scene showing an innocent blond white infant being trampled under Asian jackboots was not the image LSE wanted to convey to potential international students and donors.

I was called up as historical advisor to *War and Peace* because my book called *Russia against Napoleon* had been published not so long before. My main role was to advise on the military scenes but I also had a watching brief as regards overall historical accuracy. I read the scripts for the six episodes on a number of occasions as they moved from first drafts to final versions. I talked to advisors on costumes, computer graphics and other technical issues, as well as to the actors. As regards the military scenes the key point was to remove elements of John Wayne and instil a sense of how Napoleonic-era armies operated. Given the chronically inaccurate smooth-bore muskets of the era, this meant, for example, fighting in close-order formations. Infantry formed squares to defend themselves against approaching horsemen. Scenes depicting isolated riflemen potting French cavalry a thousand yards away from behind hedges were definitely out. The great change as regards

depicting battles on screen since the days of my youth is IT. You can create, deploy and manoeuvre thousands of men as if you were God. Unlike in the old days you no longer need to bribe and terrorise a horde of extras into some pretence of being soldiers. This playing with computers was great fun even for someone like myself who is normally terrified of IT and regards it as the weapon of the anti-Christ.

One part of my job was to get the uniforms right. Here a true fanatic was in his element. My home in London has bookshelves crammed with guides to old Russian uniforms. I have a vast collection of exquisitely accurate lead figures of soldiers of all the regiments of the Imperial Russian army, which were sculpted and painted for me by fellow-lunatics who were former officers of the Soviet submarine fleet made redundant in the 1990s by the collapse of the USSR. Once, when my wife was away on business in Japan for three months, I craftily transformed part of our garden into a hall where they are still displayed to full affect. On the whole my efforts in this area were appreciated by the BBC. Nikolai Rostov's regiment was, for example, the Pavlograd Hussars. It went through major changes in uniform between 1805 and 1812, and Nikolai himself rose from cadet to captain. All these changes of uniform were lovingly explained by me to the BBC and accurately portrayed in the series. Sometimes my zeal got a bit out of control. On one occasion I had a session with the hair-dresser in order to talk about hair and hats. I explained to her that the Russian army had gone to war in 1805 with their hair dressed in pig-tails but that this tradition had been abolished in mid-1806. 'Oh God', she said, 'you have doubled my budget' and ran out of the room to find the director. They returned together five minutes later and I was told rather firmly that historical accuracy had its limits. I felt a bit miffed but, unlike uniforms, hair isn't a sacred object so I kept my peace.

My role as watchdog over historical accuracy caused a bit more trouble than my position as military freak-in-residence. I was warned in advance that the script-writer, Andrew Davies, was notorious for sexing up any novel he touched. Purists and puritans instructed me to be on my guard. When the name of Lili James, the actress playing the role of Natasha Rostova, was announced dark whispers were conveyed to me about her unsuitable sexiness. Actually I thought she was delicious as Natasha Rostova in every possible way. That old reprobate, Lev Tolstoy, might have pretended otherwise but actually he would have loved her too.

I was in any event not well-placed to mount a stout defence of the morals of the Russian aristocracy against Andrew Davies. As *War and Peace* approaches the end of the 1812 campaign my great uncle was appointed Russian ambassador

in London, a post he held for the next twenty-two years. His wife, Dorothea Lieven, was the mistress of the Austrian chancellor, Prince Metternich. This was not a secret to the Russian tsar nor to his chief of state security, who happened to be Dorothea's brother. So they used Dorothea as a brilliant channel of disinformation to Vienna. This did wonders for Russian foreign policy but had less successful results as regards her relationship with Metternich. Undaunted, she took up with the French Prime Minister instead. Only in the Victorian era did family morals improve. My great-grandfather was Lord Chamberlain at the imperial court for twenty years under Alexander II but his widow refused to allow her daughters to be presented at court, claiming that this was how nice young girls caught venereal disease. Given all this, I thought that the odd naked bottom in Andrew Davies's script and hints at incest were actually not just in the spirit of the occasion but even a bit tame.

Only one scene caused me real trouble. This was the depiction of Emperor Alexander I in Moscow in 1812. This was horribly inaccurate and a wicked caricature. To put it in appropriate British language, it was blasphemous and seditious libel. It was far worse than all six episodes crammed with gory executions, naked bottoms and incest would have been. I explained this very calmly and politely to the director and his assistants. They looked a bit pained, said they would tone it down a bit but that the scene was good theatre. When the new script arrived the scene came back to me basically still in its full, evil guise. I told the actors when I met them some weeks after reading the revised script that I had shut my eyes, made the sign of the cross ten times and muttered a prayer when last reviewing this bit of the script. I added that if the script went out in its present form Putin's Russia would declare war on Britain and God would certainly strike down the whole production team with the plague. I suppose this was a naughty attempt to spread mutiny in the ranks. The actors, however, assured me that I had prevailed and the scene had been removed. My assurances that they would all now live long lives were somewhat blighted by the poor young man who was acting Alexander I telling me that I had censored his best scene. Still worse, he turned out to be a friend of my daughter.

There was an idea that I would go out in person to oversee the filming of military scenes in Lithuania. The possibility loomed of me participating in battle scenes in the same style as Robin Lane-Fox in *Alexander*. Then circumstances changed and the idea was dropped. Five seconds of regret was followed by a surge of relief. At a mundane level I don't have six weeks to spare for jaunting around Lithuania.

More to the point, Robin Lane-Fox is a lithe and military figure. That was far from true of me even in those faraway days when I was notorious as the most shambolic conscript in our school cadet corps, totally incapable of marching in a straight line, so diminutive that my trousers reached my nose, and altogether so astonishing a soldier that even the supposedly ferocious RSM was reduced to laughter. Just once I was introduced to a horse and expected to ride it. Conscious of coming from a long line of cavalry generals I screwed up my courage and leapt at it with such enthusiasm that I shot right over it and fell in the mud on the other side. The poor animal was a little baffled though very amiable about it all but my dignity was badly affronted. But it is one thing to suffer humiliation as a twelve-year-old and quite another as a respectable oldie bearing the full weight of Trinity's dignity on your shoulders. So it was altogether to the good that I did not make a fool of myself pretending to be a Russian cavalry general and disappearing into the Lithuanian snow.

Instead I sat at home and watched the completed project on my television. On the whole I thought it was very good. The one occasional blackspot was the costumes. I had given advice on this but had not been present when the costumes were actually procured. Come the first episode and I was flooded with emails and telephone calls from the BBC saying that they were being accused of adorning the chest of a French émigré viscount with a Bonapartist Legion of Honour. In fact, not just was the accusation true but they had also dressed him in a Napoleonic court uniform in which no true-blue royalist émigré would have been seen dead. But since all this concerned mere Frenchmen I wasn't too fussed. True horror arrived, however, in the famous ball scene where Prince Andrei and Natasha Rostova fall in love. I know I had given strict instructions as to the ball-dress uniform of officers of the Chevaliers Gardes, the regiment not just of Prince Andrei but also of a good many of my own ancestors. Instead Andrei turned up looking like a fantasy footman from Cinderella. This was the only time when watching the six episodes that I had to clutch my brandy bottle. I have to admit that I also muttered some politically very incorrect comments about women and military uniforms. But actually the women had the last laugh on me. When I complained bitterly to my family about the horror committed by the BBC I was reminded of how I had built a hall for my soldiers in my wife's absence and of my claim that I had only done this to spare her the noise that all this construction entailed.





FELLOWS, STAFF,
& STUDENTS

THE MASTER AND FELLOWS
APPOINTMENTS AND DISTINCTIONS

IN MEMORIAM

A 90TH BIRTHDAY SPEECH
AN 80TH BIRTHDAY SPEECH

COLLEGE NOTES





The Fellowship

The Master and Fellows

October 2016

Master

(Appointed 2012) **Sir Gregory Paul Winter**, CBE, FRS, Molecular Biology.

Fellows

Elected

- 1993 D **Michael Grae Worster**, Vice-Master; Professor of Fluid Dynamics, College Senior Lecturer in Mathematics.
- 1953 E **Sir Elihu Lauterpacht**, CBE, QC, Emeritus Honorary Professor of International Law.
- 1954 E **Sir Michael Francis Atiyah**, OM, FRS, Hon. FEng., Mathematics.
- 1957 E **Amartya Kumar Sen**, CH, FBA, Economics.
- 2012 E **Lord Rees of Ludlow**, OM, FRS, (Hon) FBA, Emeritus Professor of Cosmology and Astrophysics.
- 1957 E **John Frank Davidson**, FRS, FEng., Emeritus Shell Professor of Chemical Engineering.
- 1958 E **Henry John Easterling**, Classics.
- 1958 E **Andrew David McLachlan**, FRS, Physics.
- 1960 E **Ian Michael Glynn**, FRS, Emeritus Professor of Physiology.
- 1961 E **Anil Seal**, History.
- 1963 E **Roger David Dawe**, Classics.

- 1964 E **Neil Kenneth Hamer**, Chemistry.
- 1964 E **John Michael Lonsdale**, Emeritus Professor of Modern African History.
- 1964 E **Alan Baker**, FRS, Emeritus Professor of Pure Mathematics.
- 1966 E **Ronald Leslie Ferrari**, Engineering.
- 1966 E **Julian Charles Roland Hunt**, Lord Hunt of Chesterton, CB, FRS, Mathematics.
- 1967 E **Brian Redman Mitchell**, Economics.
- 1968 E **Christopher Thomas Morley**, Engineering, Secretary of the Council.
- 1968 E **Brian David Josephson**, FRS, Emeritus Professor of Physics.
- 1970 E **Béla Bollobás**, FRS, Emeritus Honorary Professor of Pure Mathematics.
- 1971 E **Robert Neild**, Emeritus Professor of Economics.
- 1971 E **Walter Garrison Runciman**, Lord Runciman of Doxford, CBE, FBA, Sociology.
- 1971 E **Hugh Osborn**, Emeritus Professor of Quantum Field Theory.
- 1971 E **Edward John Hinch**, FRS, Emeritus Professor of Fluid Mechanics.
- 1972 E **Graham Alan Chinner**, Earth Sciences.
- 1972 E **Sir Michael John Berridge**, FRS, Emeritus Honorary Professor of Cell Signalling.
- 1973 E **Horace Basil Barlow**, FRS, Emeritus Professor of Physiology.
- 1973 E **Philip James Allott**, FBA, Emeritus Professor of International Public Law.
- 1974 E **Douglas Peter Kennedy**, Mathematics.
- 1974 E **Andrew John Boyd Hilton**, FBA, Emeritus Professor of Modern British History.
- 1974 D **Andrew Charles Crawford**, FRS, Professor of Neurophysiology.
- 1975 E **Adrian Douglas Bruce Poole**, Emeritus Professor of English Literature, Tutor for Admissions.

- 1975 E **Alan Geoffrey Weeds**, Biochemistry.
- 1976 D **Simon Douglas Keynes**, FBA, Elrington and Bosworth Professor of Anglo-Saxon, College Senior Lecturer in Anglo-Saxon.
- 1976 E **John Martin Rallison**, Emeritus Professor of Fluid Mechanics-
- 1977 E **Gilbert George Lonzarich**, FRS, Emeritus Professor of Condensed Matter Physics.
- 1977 D **Stephen Richard Elliott**, Professor of Chemical Physics, College Senior Lecturer in Chemistry, Steward.
- 1978 E **Alan Hardwick Windle**, FRS, Emeritus Professor of Materials Science.
- 1978 B **John Alexander Marenbon**, FBA, Honorary Professor of Medieval Philosophy.
- 1979 E **Mohammad Hashem Pesaran**, FBA, Emeritus Professor of Economics.
- 1979 E **Ian Ranald McDonald**, Chemistry.
- 1980 E **Henry Keith Moffatt**, FRS, Emeritus Professor of Mathematical Physics.
- 1980 E **Arthur Charles Norman**, Computer Science, Temporary Tutor.
- 1980 E **Eric Griffiths**, English.
- 1981 E **Ronald Midgley Nedderman**, Chemical Engineering.
- 1981 D **Pelham Mark Hedley Wilson**, Professor of Algebraic Geometry, College Senior Lecturer in Mathematics.
- 1982 E **John Nicholas Postgate**, FBA, Emeritus Professor of Assyriology.
- 1982 E **Sir Michael Pepper**, FRS, Emeritus Professor of Physics.
- 1983 D **Nicholas Geoffrey Kingsbury**, Professor of Signal Processing, College Senior Lecturer in Engineering.
- 1983 C **Nicholas Charles Denyer**, University Senior Lecturer in Classics, College Senior Lecturer in Philosophy, Praelector (Father of the College).
- 1983 C **Neil Hopkinson**, College Senior Lecturer in Classics.

- 1984 E **Christopher Robin Lowe**, Emeritus Professor of Biotechnology.
- 1985 C **Mark Gianni Chinca**, Reader and College Senior Lecturer in German.
- 1986 E **David John McKitterick**, FBA, Emeritus Honorary Professor of Historical Bibliography.
- 1986 D **Malcolm John Perry**, Professor of Theoretical Physics, College Senior Lecturer in Mathematics.
- 1986 E **Stephen Ellwood Satchell**, Emeritus Reader of Financial Econometrics.
- 1987 E **Robin Wayne Carrell**, FRS, Emeritus Professor of Haematology.
- 1987 E **Peter Nigel Tripp Unwin**, FRS, Molecular Biology.
- 1989 E **Roger Cole Paulin**, Emeritus Schröder Professor of German.
- 1989 E **Piero Migliorato**, Emeritus Professor of Physical Electronics.
- 1990 C **Hugh Edmund Murray Hunt**, Reader and College Lecturer in Engineering, Tutor.
- 1990 C **Paul Wingfield**, College Senior Lecturer in Music.
- 1990 E **Nicholas Ian Shepherd-Barron**, FRS, Algebraic Geometry.
- 1991 E **David Ephraim Khmel'nitskii**, Emeritus Honorary Professor of Theoretical Physics.
- 1992 E **Jeremy Richard Frederick Fairbrother**, formerly Senior Bursar.
- 1992 E **Mark Robert Morris**, Japanese Studies.
- 1993 E **Steven Victor Ley**, CBE, FRS, Emeritus BP Professor of Chemistry.
- 1993 E **Alexander Paul Simm**, CBE, formerly Junior Bursar.
- 1993 E **Kevin John Gray**, FBA, Emeritus Professor of Law.
- 1993 D **Roger John Keynes**, Professor of Neuroscience, College Senior Lecturer in Physiology.
- 1994 D **Shankar Balasubramanian**, FRS, Herchel Smith Professor of Medicinal Chemistry.
- 1994 C **Jean Khalfa**, College Senior Lecturer in French, Tutor for Advanced Students.

- 1994 D **Valerie Gibson**, Professor of High Energy Physics, College Senior Lecturer in Physics.
- 1995 E **Sir James Alexander Mirrlees**, FBA, Emeritus Professor of Political Economy.
- 1995 D **Sir William Timothy Gowers**, FRS, Rouse Ball Professor of Mathematics.
- 1995 D **Simon Baron-Cohen**, FBA, Professor of Developmental Psychopathology.
- 1996 D **Catherine Sarah Barnard**, Professor of European Union and Employment Law, College Senior Lecturer in Law, Senior Tutor.
- 1996 C **Richard William Serjeantson**, College Lecturer in History, Tutor.
- 1997 D **Colin Hughes**, Professor of Microbiology, College Senior Lecturer in Medical Sciences.
- 1997 D **John Ronald Lister**, Professor of Fluid Mechanics, College Senior Lecturer in Mathematics.
- 1997 C **Sachiko Kusakawa**, Honorary Professor and College Lecturer in History and Philosophy of Science, Dean of College.
- 1997 C **Mary Teresa Josephine Webber**, Reader in History, College Lecturer in Palaeography.
- 1998 C **John Rupert James Gatti**, College Lecturer in Economics, Tutor.
- 1998 C **Emma Kathrine Widdis**, Reader in Slavonic Studies, College Lecturer in Russian.
- 1998 C **Susan Framji Daruvala**, University Senior Lecturer and College Lecturer in Chinese Studies, Tutor.
- 1998 C **Erica Monica Simona Segre**, College Lecturer in Spanish.
- 1998 D **Hamish Wallace Low**, Professor of Economics, College Senior Lecturer in Economics. Tutor.
- 1999 D **Lynn Faith Gladden**, CBE, FRS, FREng., Shell Professor of Chemical Engineering, Pro-Vice-Chancellor for Research.
- 1999 C **Joanna Katherine Miles**, University Senior Lecturer and College Lecturer in Law.

- 2000 C **Peter Vincent Sarris**, Reader and College Lecturer in History.
- 2000 D **Ali Alavi**, FRS, Professor of Theoretical Chemistry.
- 2000 D **Imre Bennett Leader**, Professor of Pure Mathematics, College Senior Lecturer in Mathematics.
- 2000 D **Marian Barbara Holness**, Professor of Earth Sciences, College Senior Lecturer in Earth Sciences.
- 2000 C **Alyce Abigail Heloise Mahon**, Reader and College Lecturer in History of Art.
- 2001 E **Simon Walter Blackburn**, FBA, Emeritus Professor of Philosophy.
- 2001 C **Joan Lasenby**, Reader and College Lecturer in Engineering.
- 2001 E **Douglas Thomas Fearon**, FRS, Emeritus Wellcome Professor of Medicine.
- 2001 D **Richard Lawrence Hunter**, FBA, Regius Professor of Greek.
- 2001 C **Anne Cecilia Toner**, College Lecturer in English, Tutor.
- 2001 D **Gabriel Pedro Paternain**, Professor of Mathematics.
- 2002 E **Gary William Gibbons**, FRS, Emeritus Professor of Theoretical Physics.
- 2002 C **Thomas Anthony Fisher**, University and College Lecturer in Mathematics.
- 2002 D **Rebecca Clare Fitzgerald**, Professor of Oncology, College Senior Lecturer in Medical Sciences, Adviser to Women Students.
- 2002 C **Sean Barry Holden**, University Senior Lecturer and College Lecturer in Computer Science.
- 2003 C **Louise Ann Merrett**, University Senior Lecturer and College Lecturer in Law.
- 2004 C **Glen Rangwala**, University Lecturer in Politics, College Lecturer in Social and Political Sciences, Assistant Tutor for Admissions.
- 2005 D **Judith Louise Driscoll**, Professor of Materials Science.
- 2005 D **Daniel Mark Wolpert**, FRS, Professor of Engineering.
- 2005 C **Michael Rummine Tehranchi**, University and College Lecturer in Mathematics.

- 2006 C **Revd Michael Charles Banner**, Dean of Chapel, Fellow for Development & Alumni Relations.
- 2006 C **Rory Buchanan Landman**, Senior Bursar.
- 2006 B **Jeremy Nicholas Butterfield**, FBA, Philosophy.
- 2006 B **Philip Russell Hardie**, FBA, Honorary Professor of Latin Literature.
- 2006 C **Stephen David Layton**, Director of Music.
- 2006 D **Matthew Pudan Juniper**, Professor of Engineering, College Senior Lecturer in Engineering.
- 2006 C **Roderick Allen Pullen**, Junior Bursar. Retires December 2016
- 2006 B **Angela Leighton**, FBA, Honorary Professor of Poetry.
- 2006 D **Nicholas Jeremy Thomas**, FBA, Professor of Historical Anthropology.
- 2007 D **Joya Chatterji**, Professor of Modern South Asian History, College Senior Lecturer in History.
- 2007 C **Friedrich Malte Grosche**, Reader and College Lecturer in Physics, Assistant Tutor for Admissions.
- 2007 C **Frederick John Livesey**, Reader in Biochemistry, College Lecturer in Biomedical Science.
- 2007 D **Harvey Stephen Reall**, Professor of Mathematics, College Senior Lecturer in Mathematics.
- 2007 D **Zoran Hadzibabic**, Professor of Physics, College Senior Lecturer in Physics.
- 2007 D **David Robert Spring**, Professor of Chemistry, College Senior Lecturer in Chemistry, Tutor for Advanced Students.
- 2007 D **Jason William Chin**, Professor of Chemistry, Member of the Medical Research Council's scientific staff, College Senior Lecturer in Biochemistry.
- 2008 E **David Anthony Washbrook**, History.
- 2008 B **Venkatraman Ramakrishnan**, FRS, Molecular Biology, Member of the Medical Research Council's scientific staff.

- 2008 C **Stuart Kenneth Haigh**, University Senior Lecturer and College Lecturer in Engineering, Tutor.
- 2009 D **Sir David Charles Baulcombe**, FRS, Regius Professor of Botany.
- 2009 D **David Tong**, Professor of Theoretical Physics, College Senior Lecturer in Mathematics.
- 2010 D **Alexandra Marie Walsham**, FBA, Professor of Modern History.
- 2010 C **Joseph Moshenska**, College Lecturer in English.
- 2011 C **John Frederick Rudge**, University and College Lecturer in Mathematics.
- 2011 D **Paul Martin Brakefield**, FRS, Professor of Biological Sciences. College Senior Lecturer in Biological Sciences.
- 2011 D **Huw Price**, FBA, Bertrand Russell Professor of Philosophy.
- 2011 B **Heonik Kwon**, Social Anthropology.
- 2011 D **Sarah Elizabeth Worthington**, QC, FBA, Downing Professor of the Laws of England, College Senior Lecturer in Law.
- 2011 B **Dominic Christophe Bogdan Lieven**, FBA, History.
- 2011 C **Cameron Andrew Petrie**, University Senior Lecturer and College Lecturer in Archaeology.
- 2011 D **Oliver Bruce Linton**, FBA, Professor of Political Economy.
- 2012 D **Patrick Henry Maxwell**, Regius Professor of Physic.
- 2012 C **Adam Meyer Boies**, University and College Lecturer in Engineering.
- 2013 D **Didier Patrick Queloz**, Professor of Physics.
- 2013 D **Joel Lee Robbins**, Sigrid Rausing Professor of Social Anthropology, College Senior Lecturer in Social Anthropology.
- 2013 C **Ross Michael Wilson**, University and College Lecturer in English.
- 2013 C **Eric Jean-Marie Lauga**, Reader and College Lecturer in Mathematics.
- 2013 C **David Benjamin Skinner**, University and College Lecturer in Mathematics.

- 2013 C **Tiago Vanderlei de Vasconcelos Cavalcanti**, University and College Lecturer in Economics.
- 2013 A **Kathryn Rebecca Stevens**, Classics.
- 2013 A **Oliver Charles Henry Shorttle**, Earth Sciences.
- 2013 A **Aidan Sean Russell**, History.
- 2013 A **Anthony John Pickles**, Anthropology.
- 2013 A **Daniel Richard Larsen**, History.
- 2013 A **Yvette Chanel Perrott**, Astronomy.
- 2014 C **Henry John Rutley Wilton**, University and College Lecturer in Mathematics.
- 2014 C **Claudio Castelnovo**, Reader and College Lecturer in Physics.
- 2014 A **Francis Gordon Woodhouse**, Applied Mathematics.
- 2014 A **Alexander Lloyd Gaunt**, Physics.
- 2014 A **Ailsa MacGregor Keating**, Pure Mathematics.
- 2014 A **Sean Paul Curran**, Music History.
- 2014 A **Paul Howard**, Italian Literature.
- 2014 A **James Edward Kirby**, Intellectual History.
- 2015 C **Felice Torrisi**, University and College Lecturer in Engineering.
- 2015 C **Nicolas John Bell**, Librarian.
- 2015 C **Frank Stajano**, University and College Lecturer in Computer Sciences.
- 2015 C **Catarina Ducati**, University and College Lecturer in Materials Science.
- 2015 C **Debopam Bhattacharya**, University and College Lecturer in Economics.
- 2015 C **Jason Peter Miller**, University and College Lecturer in Mathematics.
- 2015 A **Richard Harford Montgomery**, Mathematics.
- 2015 A **Joseph Christopher Keir**, Mathematics.

- 2015 A **Alexander William Freer**, English.
- 2015 A **Tom Hamilton**, History.
- 2015 A **Micha David Swade Lazarus**, English.
- 2015 A **Edouard Hannezo**, Biophysics.
- 2015 A **Bernhard Joachim Salow**, Philosophy.
- 2015 A **Mireia Crispin Ortuzar**, Physics.
- 2016 D **Sven Mikael Adolphson**, University and College Lecturer in Japanese Studies.
- 2016 B **Michael Elmhirst Cates**, Physics.
- 2016 B **Gregory James Hannon**, Oncology.
- 2016 C **Jonathan Paul Bourne**, OBE, Junior Bursar. Assistant Bursar on appointment (01/09/16); Junior Bursar from 01/01/17.
- 2016 C **Andrew John Sederman**, Assistant Director of Research and College Lecturer in Chemical Engineering.
- 2016 C **Catherine Elizabeth Margaret Aiken**, Academic Clinical Lecturer in Obstetrics and Gynaecology and College Lecturer in Medicine.
- 2016 C **Milka Sarris**, University and College Lecturer in Biological Science.
- 2016 C **Per-Ola Kristensson**, University and College Lecturer in Engineering.
- 2016 C **Benjamin James Spagnolo**, College Lecturer in Law.
- 2016 C **Philip Knox**, University and College Lecturer in English.
- 2016 A **Clare Helen Walker-Gore**, English.
- 2016 A **Edgar Albert Engel**, Physics.
- 2016 A **Aaron Joseph Kachuck**, Classics.
- 2016 A **Gunnar Guannan Peng**, Applied Mathematics.
- 2016 A **Beñat Gurrutxaga-Lerma**, Material Physics.
- 2016 A **Duncan Hardy**, Medieval History.
- 2016 A **Jessica Fintzen**, Pure Mathematics.

Titles under which Fellowships are held:

- A Junior Research Fellows** are elected in an open competition normally decided at the start of each calendar year. Their Fellowships are normally tenable for four years.
- B Senior Research Fellows** are established scholars capable of 'contributions of high value' to their subject. Tenable for five years, a Senior Research Fellowship may be extended for further periods of five years, as long as the holder is actively engaged in research.
- C** Appointment to a **Qualifying College Office** confers eligibility to hold a Fellowship under Title C. College officers include College Lecturers, the Dean of Chapel, the Bursars, and the Librarian.
- D** Eligibility for these **Professorial Fellowships** is restricted to those who hold a University Professorship or a University office of similar standing (e.g. Registry, University Librarian). Some Professors, previously Fellows under Title C, choose to retain their College Lectureships on being promoted to Professor, and remain members of the College teaching staff as College Senior Lecturers, as is indicated in the list above.
- E** These are **retired Fellows** who, to qualify, must first have served as a Fellow under Title B, C, or D for a specified number of years. Anyone who qualifies for a Fellowship under Title E is entitled to hold it for life.
- F** These are **Visiting Fellowships** awarded only to those who are not normally resident in Cambridge; are primarily concerned with the furtherance of education, learning, or research; and are here for a period of not more than two years.

Honorary Fellows

- 1977 **HRH The Prince Philip**, Duke of Edinburgh, KG, KT, OM, GBE, PC, FRS, FREng.
- 1981 **Sir Peter Swinnerton Dyer**, Bt., KBE, FRS.
- 1983 **Sir Aaron Klug**, OM, FRS.
- 1988 **HRH The Prince of Wales**, KG, KT, GCB, PC, OM, FRS, (Hon)FRSE.
- 1989 **Freeman John Dyson**, FRS.

- 1989 **Lord Mackay of Clashfern**, KT, PC, QC.
- 1991 **Sir John Elliott**, FBA.
- 1991 **Walter Gilbert**, For. Mem. RS.
- 1999 **Lord Broers of Cambridge**, FRS, FREng.
- 1999 **Dame Ann Marilyn Strathern**, DBE, FBA.
- 2000 **Jeffrey Goldstone**, FRS.
- 2000 **Ian MacDougall Hacking**, FBA.
- 2003 **Sir Antony Mark David Gormley**, OBE.
- 2004 **Sir Richard Henry Friend**, FRS, FREng.
- 2005 **Jared Mason Diamond**.
- 2005 **Stephen Myron Schwebel**.
- 2006 **Lord Walker of Gestingthorpe**, PC.
- 2007 **Sir Peter Julius Lachmann**, FRS.
- 2009 **Peter Goddard**, CBE, FRS.
- 2009 **Judge Hisashi Owada**.
- 2010 **Sir Partha Dasgupta**, FBA, FRS.
- 2011 **Sir Noel Robert Malcolm**, FBA.
- 2011 **Sir Andrew Wiles**, FRS.
- 2013 **Lord Carnwath of Notting Hill**, CVO, PC.
- 2013 **Michael Lawrence Klein**, FRS.
- 2013 **David John Cameron MacKay**, FRS.
- 2014 **The Revd John Charlton Polkinghorne**, KBE, FRS.
- 2014 **Thomas Michael Jessell**, FRS.
- 2014 **Stuart Stephen Papworth Parkin**, FRS, FRSE.
- 2014 **Sir Mark Pepys**, FRS.
- 2015 **Christopher John Raymond Garrett**, FRS.

- 2015 **Anthony T Grafton**, CorrFBA.
- 2015 **The Most Revd and Rt Hon Justin Portal Welby**, PC.
- 2016 **Bryan John Birch**, FRS.
- 2016 **Roy Kerr**.
- 2016 **Daan Frenkel**, FORMEMRS.
- 2016 **Stephen John Toope**.

Regius Professors on the Foundation

- 2012 **Geoffrey Khan**, Regius Professor of Hebrew, Fellow of Wolfson College.
- 2015 **Ian McFarland**, Regius Professor of Divinity, Fellow of Selwyn College.

Elections to Fellowships 2016–17

Elected to a Fellowship under Title C with effect from 1 October 2016:

Andrew John Sederman, on appointment as College Lecturer and Assistant Director of Research in Chemical Engineering.

Catherine Elizabeth Margaret Aiken, on appointment as College Lecturer and Academic Clinical Lecturer in Obstetrics and Gynaecology.

Milka Sarris, on appointment as College and University Lecturer in Physiology.

Per-Ola Kristensson, on appointment as College and University Lecturer in Engineering.

Benjamin James Spagnolo, on appointment as College Lecturer in Law.

Philip Michael Frances Knox, on appointment as College and University Lecturer in English.

Professor Mikael Adolphson, Fellow Title D (January 2016) UTOAsian and Middle Eastern Studies.

Elected to Fellowships under Title A at the annual election with effect from 3 October 2016:

Clare Helen Walker Gore (Selwyn College, Cambridge) for research in English.

Edgar Albert Engel (Trinity College, Cambridge) for research in Physics.

Aaron Joseph Kachuck (Princeton University, USA) for research in Classics.

Gunnar Guannan Peng (Trinity College, Cambridge) for research in Applied Mathematics.

Beñat Gurrutxaga-Lerma (Imperial College, London) for research in Material Physics.

Duncan Hardy (Jesus College, Oxford) for research in Medieval History.

Jessica Fintzen (Harvard University, USA) for research in Pure Mathematics.

Elections to Honorary Fellowships

Elected to Honorary Fellowship in June 2016:

Bryan John Birch, FRS.

Roy Kerr.

Daan Frenkel, FORMEMRS.

Elected to Honorary Fellowship in October 2016:

Stephen John Toope

Chaplains

2015 **Rev'd Andrew Derek Bowyer**

2015 **Rev'd Kirsty Leanne Ross**

College Offices

Professor Grae Worster appointed Vice-Master from 1 September 2016.

Dr Adam Boies appointed Tutor for Side D from 1 October 2016.

Mr Kevin Cristin has been appointed Lecteur in French for one year from 1 October 2016.

Visiting Fellow Commoners

Professor James Faubion, Professor of Anthropology, Rice University, Michaelmas Term 2016.

Professor Thomas Hertog, Professor of Theoretical Physics, University of Leuven, Michaelmas Term 2016.

Professor David Kovacs, Professor of Classics, University of Virginia, Michaelmas Term 2016.

Professor Peter Rutledge, Associate Professor in the School of Chemistry, University of Sydney, Michaelmas Term 2016.

Professor Margaret Goodell, Professor and Director – Stem Cells & Regenerative Medicine Center, University of Houston, Lent and Easter Terms 2017.

Professor Jozsef Balogh, Professor – Department of Mathematical Sciences, University of Illinois, Lent and Easter Terms 2017.

Professor Mahesh Tirumkudulu, Associate Professor – Department of Chem Engineering, IIT Bombay, Lent and Easter Terms 2017.

Professor Arthur Lesk, Professor of Biochemistry and Molecular Biology, University of Pennsylvania, Lent Term 2017.

Professor Sheila Fitzpatrick, Historian of Modern Russia, University of Sydney, Easter Term 2017.

Professor Belinda Fehlberg, Professor of Law, University of Melbourne, Long Vacation 2017.

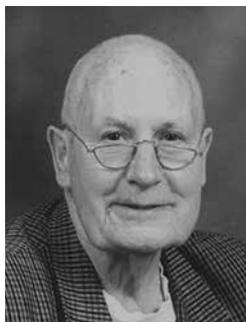
Professor Sebastien Michelin, Associate Professor, Department of Mechanics, Ecole Polytechnique, Long Vacation 2017.

Academic Honours

- 2000 **A. Alavi**, Fellow, International Academy of Quantum Molecular Science.
- 1954 **M.F. Atiyah**, Honorary Fellow, Learned Society of Wales.
- 1994 **S. Balasubramanian**, Honorary Doctorate, University of Glasgow.
- 1996 **C.S. Barnard**, Honorary Doctorate, University of Lund; Senior Europe Fellow in UK, Changing Europe Programme, ESRC.
- 2015 **D. Bhattacharya**, Principal Investigator, 5-Year ERC Project, ‘Empirical Demand and Welfare Analysis’.
- 1987 **R.W. Carrell**, Honorary Fellow, Darwin College.
- 2016 **M.E. Cates**, Bingham Medal, Society of Rheology (US).
- 2007 **J.W. Chin**, Fellow, Academy of Medical Sciences.
- 1995 **S. Baron-Cohen**, Chair, Psychology Section, British Academy; President, International Society for Autism Research (ISAR); Senior Investigator, National Institute of Health Research (NIHR).
- 2001 **S.W. Blackburn**, Honorary Foreign Member, Australian Academy of the Humanities.
- 2012 **G.R. Corbett**, Lecturer in Theology, Imagination and the Arts, University of St Andrews.
- 1957 **J.C. Davidson**, The Bird Stewart and Lightfoot Medal, Institution of Chemical Engineers.
- 2005 **J.L. Driscoll**, Armourers and Brasiers Company Prize, Royal Academy of Engineers.
- 2007 **D. Frenkel**, Boltzmann Medal, Commission on Statistical Physics of the International Union of Pure and Applied Physics; Foreign Member, National Academy of Sciences (US).
- 1994 **V. Gibson**, Athena Prize, Royal Society.
- 1995 **W.T. Gowers**, Sylvester Medal, Royal Society; De Morgan Medal, London Mathematical Society.
- 1993 **K.J. Gray**, Distinguished Visiting Mentor, Australian National University; Honorary Member, Property Bar Association.

- 2007 **V. Hadzibabic**, Holweck Medal and Prize, Institute of Physics (UK) and French Physical Society; EPSRC Established Career Fellowship.
- 2006 **P.R. Hardie**, Sather (Visiting) Professor of Classical Literature, University of California (Berkeley).
- 2006 **M.P. Juniper**, Professor of Thermofluid Dynamics, University of Cambridge.
- 2011 **D.C.B. Lieven**, Pushkin House Prize for best book on Russia in English.
- 2015 **J.P. Miller**, Whitehead Prize, London Mathematical Society; Poincare Chair, Henri Poincare Institute, Paris.
- 1995 **J.A. Mirlees**, Honorary D. Litt., University of Glasgow.
- 1979 **M.H. Pesaran**, Honorary Doctorate, Prague University of Economics; Fellow Award, Eurasia Business and Economics Society.
- 2013 **A.J. Pickles**, British Academy Post-doctoral Fellowship.
- 2011 **H. Price**, Gottlob Frege Lecturer, University of Tartu, Estonia; Director, Leverhulme Centre for the Future of Intelligence, Cambridge.
- 2008 **V. Ramakrishnan**, President, Royal Society.
- 2012 **M.J. Rees**, Honorary Doctor of Science, Harvard University; Erasmus Award, Academia Europeae; Honorary Fellow, Learned Society of Wales; Honorary Fellow, Clare Hall; Lilienfeld Prize, American Physical Society.
- 2013 **J.L. Robbins**, Honorary Doctorate, University of Lund.
- 1957 **A.K. Sen**, Honorary D. Litt., Emory University; Global Achievement Award, University of Bradford; Society for Progress Medal, INSEAD.
- 2012 **P.P. Varju**, EMS Prize, European Mathematical Society.
- 1997 **M.T.J. Webber**, J.P.L. Lyell Reader in Bibliography, University of Oxford (Lyell Lectures).
- 2013 **R.M. Wilson**, Leverhulme Trust Fellowship 2016–17.

In Memoriam



John William Scott 'Ian' Cassels (1922–2015)

Professor J.W.S Cassels, FRS, FRSE, who was elected a member of the London Mathematical Society on 19 June 1947, died on 27 July 2015, aged 93. Professor Cassels was Vice-President of the LMS 1974–76, President of the LMS 1976–8, editor of the LMS Lecture Note Series 1983–97, awarded the De Morgan Medal in 1986.

Bryan Birch writes: Ian Cassels was an important mathematician, best known for his fundamental work on the arithmetic of elliptic curves. He published about 200 research papers, almost all on the theory of numbers, and eight graduate texts. He was elected Fellow of Trinity in 1949, and of the Royal Society in 1963. He was appointed Reader in Arithmetic in 1963 and was Sadleirian Professor from 1967 to 1984. He served as head of DPMMS from 1969–84, and as a vice president of the Royal Society from 1974–8. He was awarded the Sylvester Medal of the Royal Society in 1973.

When Ian Cassels took his MA in Mathematics at Edinburgh in 1943, he wrote to his parents to tell them that he had been given a fabulous posting, but he would never be able to tell them about it! He worked at Bletchley Park from July 1943 until the end of the war; for a young mathematician it must have been an ideal environment. After the war ended he went to Cambridge to do research with Louis Mordell; he received his PhD in 1949. Ian spent a year as a lecturer in Manchester, and then returned permanently to Trinity, initially as a tutorial fellow. His thesis had been on elliptic curves, but most of his early work was in other areas of number theory, particularly Diophantine Approximation and the Geometry of Numbers. At this time he also proved two easy, but very elegant and useful, theorems about rational quadratic forms, now named after him. I was lucky enough to join him in 1954 as his first research student; an early exercise was to read the drafts of his first book, on Diophantine Approximation; for me it was an admirable introduction to research, it is still in print.

While he was finishing this book, Ian returned to the study of elliptic curves. After really massive computations, Selmer had (in 1954) conjectured that (in

modern language), the difference between the Selmer rank and the Mordell-Weil rank was always even. Ian realised why this might be true, and (to use his words) ‘after several years hard work he managed to construct a skew-symmetric form on the Tate-Shafarevich group’ This was a huge breakthrough, immediately appreciated. In eight papers published between 1959 and 1964 he proved one of those big difficult theorems that everyone takes for granted! At the same time (with John Tate) he set up the basic apparatus and language for the arithmetic of elliptic curves that has remained standard ever since.

In addition to his research, Ian always endeavoured to help future mathematicians by making difficult theories more easily understandable. His most valuable contribution of this type came in 1966. when he and Ali Fröhlich organised the wonderful Brighton Conference, as a result of which Class Field Theory was converted from a recondite mystery into an accessible tool.

In 1984 he took early retirement, but he continued to lecture and research. He took on Victor Flynn as his final research student; their joint book on curves of genus 2 was published in 1996.

Though very productive, he did not work rapidly. He thought about a piece of mathematics until it became clear to him, which might take a long time, and then he took the next step. Clarity and honesty were very important to him, in life as well as mathematics. He spoke little unless he had something to say; but he had a sharp sense of humour. Though not at all a simple person, he had simple tastes; he gardened, but he never drove.

While he was in Bletchley, Ian met Constance Senior; they were both billeted in Bedford and travelled daily to work by the same train; soon they went to concerts together. They were married in 1949, and in 1952 moved into a newly built house, in which they lived for the rest of their lives; Constance died in 2000. I remember them as a devoted couple with two children. They are survived by Pat and John, together with five grandchildren and two great grandchildren.

I and many others owe Ian a great deal.

First published in the *London Mathematical Society Newsletter*, September 14, 2015.



Gareth Hywel Jones (1930–2016)

Gareth Jones, who has died aged 85, was one of the foremost legal academics of his generation: Downing Professor of the Laws of England at Cambridge for 23 years, Vice-Master of Trinity College for nine, and author with Lord Goff of *The Law of Restitution* (1966), which established in English law the topic of unjust enrichment.

Engaging, impish, and inspirational to his students, Jones came to Trinity in 1961 after a dazzling scholastic career which began in a Depression-hit pit village in the Rhondda. It took in University College London; St Catharine’s, Cambridge; Harvard Law School; Lincoln’s Inn; and lectureships at Oxford and King’s College London. Once at Trinity, Jones turned down an invitation to return to Harvard with the ultimate prize of tenure.

Trinity’s annual intake of law students – barely a dozen – is small compared with its neighbour Trinity Hall, but many become leading lights in the judiciary, Whitehall and academia. Trinity’s Law dons have consistently punched above their weight, with Jones to the fore.

Jones was not only an intellectual heavyweight but influential in university and college affairs. He chaired the Law Faculty from 1978 to 1981, and for decades taught a respected LLM course on restitution. He also served on important but time-consuming university bodies, among them the Council of the Senate.

While on the university’s General Board, Jones investigated whether posts within the deeply divided English faculty were being fairly allocated. On the University Press Syndicate, he helped break down management’s resistance to disclosing the Press’s salary structure to the university.

For 12 years, he chaired the Fitzwilliam Museum Syndicate. For much of this time the imperious Michael Jaffé was director; Jones appreciated his aesthetic eye which helped build a collection of “beauty, quality and rarity”.

Jones also became a central figure at Trinity, serving as steward, tutor, senior tutor and ultimately Vice-Master. He was involved in the processes that led to the appointment by the Queen of two Masters – Sir Michael Atiyah and Amartya Sen – and in 1997 was acting Master during the three-month interregnum between

the two, offering the same open-hearted hospitality in the Master's Lodge for which he and his wife Vivienne were noted in their own home.

Jones combined these activities with extensive travel. He lectured worldwide and held visiting professorships at several American universities, notably Chicago where he taught for 20 years. From 1998 he taught at the University of Michigan.



Gareth Jones on his wedding day

He nevertheless found time for writing and research. His quality was recognised in his appointment as a Cambridge LLD in 1972, an honorary Bencher of Lincoln's Inn in 1975, a QC in 1986 and an honorary Fellow of UCL in 1988.

His studies embraced legal history, contract, property and trusts. On the first he wrote his *History of the Law of Charity 1532–1827* (1969) and on the second *Specific Performance* (1986) with William Goodhart. He also published *The Sovereignty of the Law* (1983) and numerous articles.

Gareth Hywel Jones was born at Tylorstown, Glamorgan, on November 10 1930, the only son of BT Jones, a council surveyor, and his wife Mabel, a teacher.

Gareth's childhood was dour. No drink was taken; there was Chapel twice every Sunday (he could not understand the sermons as they were in Welsh), and he hardly spoke to a girl, cousins apart, until he went to university.

From the Rhondda County School for Boys he won a place at UCL to read Law. Graduating in 1951, he won a scholarship to St Catharine's to take a Cambridge LLB. In his final year there, he was awarded a Choate Fellowship at Harvard Law School, where he spent a rigorous but enjoyable year studying the law of restitution, making lifelong friends and being marked down as a man to watch.

Having arrived in style on the maiden voyage of SS United States, Jones went home on a slower and grubbier ship. He expected to begin his National Service, but failed the eyesight test. Instead he studied for the Bar at Lincoln's Inn, again with a scholarship, but after being called in 1955 saw little prospect of work.

He accepted a lectureship at Oxford shared between Oriel and Exeter colleges, with rooms in Oriel. A colleague introduced him to Robert Goff, who had left

Oxford for the Bar and was working on the first English textbook on restitution. Goff invited Jones to collaborate, and six years later *The Law of Restitution* was published; it has since gone through seven editions.

In 1958 Jones moved to King's College, London. Two years later he submitted an essay to the Cambridge law faculty for the Yorke Prize and was declared the winner; soon afterwards he was invited to Trinity.

He arrived at the college in October 1961 to join a Law team headed by Tony Jolowicz and Eli Lauterpacht, becoming a Fellow and a university assistant lecturer.

After five busy years, he was invited back to Harvard for a year. While there, he transcribed a 17th-century manuscript, written in law French, for his *History of the Law of Charity*. He also impressed as a teacher, and at the end of the year was offered a tenured professorship. He was tempted, but ultimately declined.

In the meantime, Jones had been appointed a tutor at Trinity, and in 1972 was appointed Senior Tutor. Two years later Stanley de Smith, the Downing Professor, died, creating a vacancy for one of only two chairs of English Law. A senior Faculty member suggested Jones "have a shot", and to his surprise he was elected.

Before taking up his chair in 1975, he took a long-planned sabbatical, first at Harvard and then at the University of Chicago. For the next 20 years, Jones spent each Spring "Quarter" – covering Cambridge's Easter vacation and the first weeks of the Easter Term – in Chicago while fulfilling all his Cambridge duties.

Jones had to resign as a tutor and leave Trinity's law staff when he took up his chair. But he continued on the College Council, serving for 19 years, and in 1986 was elected Vice-Master – a post which carries a heavy workload, not least in chairing college committees.

When Andrew Huxley retired as Master in 1990, it fell to Jones to liaise with the patronage secretary who advises the prime minister on Royal appointments, including the Mastership of Trinity. Soundings within the college and beyond led to Sir Michael Atiyah's appointment.

Jones stood down as Vice-Master in 1992, but in 1996 was persuaded to stand again, and for a second time was elected unopposed. A year later Sir Michael resigned, and Amartya Sen was appointed to succeed him.

When Jones came up for re-election in 1998 he faced a contest. He was comfortably re-elected, but stood down the next year.

Gareth Jones married Vivienne Puckridge in 1959; they had two sons and a daughter. She died in 2004. He is survived by his children and by Dilys Brewer, his partner in recent years.

First published in The Daily Telegraph 15 June 2016.



Richard Holroyd Glauert (1925–2016)

For almost forty years, Richard Glauert's name was among the first that generations of incoming Trinity undergraduates heard when they passed under Great Gate and into membership of the College. From 1957 to 1993, he served as Junior Bursar responsible for allocating them their room and keeping a wary eye on the damage they caused it. For some, his may also have been the last name that they heard when, prior to graduating and exiting Great Gate, they received his final demand to settle their College bill. For students of the time, 'Dr Glauert' represented an institutional presence scarcely distinguishable from the fabric of the College itself. Nor was it only for students: for Fellows, too, he is to be forever associated with the remarkable transformation in the College's built environment that took place during his epoch – from the coming of central heating and *en suite* bathrooms to the construction of Angel, Blue Boar and Wolfson Courts and the Burrell's Field site.

Richard Holroyd Glauert was the second generation of his family to attend Trinity, where his father Hermann had been a distinguished mathematician working in the field of aerodynamics before dying tragically young. Educated at Christ's Hospital, Richard came up to Trinity in 1943 on a Radio Bursary to complete a short wartime BA in Natural Sciences. Intriguingly, his twin sister Audrey (1925–2014) also held a Radio Bursary and was studying in Cambridge at the time – evacuated from Bedford College, London – and they shared bench space at the Cavendish Laboratory. Audrey would later go on to a distinguished

scientific career of her own, serving for many years as head of microscopy at the Strangeways Research Laboratory in Cambridge. In 1945 in lieu of National Service, Richard was seconded to Aero Research Limited in Duxford where he researched glues and, especially, the early development of Araldite. In 1948, he returned to Trinity to complete Part II of the Natural Sciences Tripos and to embark on a Ph.D in chemistry. In 1951, he was elected a Title A Fellow and, the next year, went to Harvard on a Commonwealth Fund Fellowship to work with R.B. Woodward, who would later win the Nobel Prize. Thereafter, he returned to Trinity to complete the term of his fellowship and, briefly, to rejoin Aero Research Limited. He published several research papers in these years, including one in *Nature* (1956) with his sister Audrey. However, in 1957, a vacancy occurred at Trinity when the then-Junior Bursar John (later Sir John) Bradfield moved across the corridor to become Senior Bursar. Richard applied to be Assistant Junior Bursar (initially held with a teaching fellowship in chemistry) ... and the rest proved to be history, and very much the history of Trinity College.

Across five decades, John Bradfield and Richard Glauert played leading roles in managing the 'material' life of the College, both external and internal. 'Bradfield' built the College's fortune, devising new investment schemes (such as Felixstowe port and the Cambridge science park) that were pioneering for collegiate finance. 'Glauert' ran the domestic operation: equivalent to an eight hundred-bedroom hotel that was also constantly being extended, repaired and refurbished. Much of Trinity's growing wealth was expressed in stone, bricks and mortar, whose artefacts represent the clearest mark of his contribution to the College. As servant of Buildings Committee, he implemented the construction of new accommodation and facilities as well as the maintenance, restoration and modernisation of the College's historic buildings.

Angel Court was already under construction when Glauert first took office but he saw it through to completion. In those years, more than a third of undergraduates (and virtually all post-graduates) lived out of College, where rooms for teaching and other public activities were also in short supply. By the time he retired in 1993, all undergraduates and most postgraduates were well on their way to being accommodated within the College, which also could boast its own theatre and public seminar rooms. Glauert was responsible for the building of Blue Boar and Wolfson Courts as well as the initial stages of the Burrell's Field development. All three have earned widespread public plaudits – and beyond circles of architects' self-congratulation.



Richard Glauert: Trinity in flood 2001.

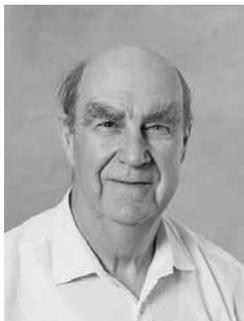
No less importantly, he held responsibility for upkeep of the College's old buildings and their adaptation to the times. It would have been a task daunting enough just to prevent some of them from falling down. However, successive 'clean air' and 'health and safety' regulations demanded also their progressive transformation to meet the ever-rising standards of modern civilization. Most radical were the implications of the College's decision to admit women members from 1976, which exposed a plumbing system designed for Victorian public school boys and little changed since. These days, undergraduates luxuriating in showers on their staircases, if not in their rooms, and no longer endangering their lives by huddling around open gas-fires on freezing November nights, have much for which to thank 'Dr Glauert'. Herculean efforts were needed to bring the College's interiors into the twentieth century.

As also they were to preserve its exteriors with the appearance of being old. From 1973, Glauert and Buildings Committee inaugurated a restoration programme, in association with Peter Locke of the Insall conservation architectural practice, which continued for many years thereafter. The programme steadily worked its way around college repairing and remodelling to combat the effects of time and to keep the buildings, as near as possible, in their original presentation. As with painting the Forth Bridge, simply maintaining the College in good condition involved a never-ending programme of work.

The demands of this work meant that, inevitably, Richard Glauert's scientific research began to fade into the background and his Bursarial duties to take precedence. Nonetheless, he periodically attempted to bring the two together and always viewed his tasks in hand with a scientist's eye. In 1980, for example, he published an article in *Environmental Conservation* on the Dutch Elm disease then ravaging the country – and Trinity's own gardens. Also, Hugh Hunt recalls how he responded to a rare crisis with a great spirit of scientific invention. In 1988, the then-world famous athletes Sebastian (now Lord) Coe and Steve Cram were challenged to do the Great Court Run in emulation of Lord Burghley's feat of 1927. However, just prior to the much-publicised event, the Great Court Clock stopped for no apparent reason. Glauert called in a Nobel Prize-winning scientist (then-Master Sir Andrew Huxley) and, initially, they located the problem in a batten rubbing on the door of the clock-case. But Glauert then noticed that, as the winding mechanism wore down, the time taken to strike the midday hour stretched from 43 to 45 seconds (the equivalent of twenty yards at the speed that Coe and Cram ran). To preserve the integrity of time – not to mention Coe and Cram's reputations – he arranged for the winding schedule to be doubled to twice weekly, which was maintained thereafter.

Richard Glauert always had a special affection for the Great Court Clock, of which he was official Keeper from 1979 to 2004. He was known to check its chimes regularly against the speaking clock on the telephone. However, this was but part of a much broader affection for, and devotion to, the College where he spent most of his adult life. A keen photographer, he left in the archives a large collection of photographs of both college events and buildings, some stretching back to his own early days in the 1940s and others revealing its moods and vicissitudes (in winter, flood and flower) and its more obscure nooks and crannies. He clearly passed on this affection to other members of his family who now can claim four generations of admission to Trinity, including son John and grand-daughter Elsa. At his memorial service, John reminded of the occasion, during the restoration of Whewell's Court, when Richard was asked if he wished to have a model of his face carved onto one of the gargoyles above the Court. He declined with modesty. However, it would by no means be unfitting in view of their service to the College if, the next time that Whewell's Court is 'restored', the faces of both Richard Glauert and John Bradfield were immortalised in stone overlooking the College.

Richard Glauert is survived by Veronica, his wife of sixty-seven years, his children John, Bill, Tim and Catherine and his grandchildren.



Michael S. Longuet-Higgins FRS
(1925–2016)

**By Shahrddad Sajjadi (Saj) CMath FIMA
Embry-Riddle Aeronautical University**

Michael Selwyn Longuet-Higgins was born on 8 December 1925 in the village of Lenham, near Maidstone, Kent, England, where his father was the local Vicar. Michael was the youngest of three children; he had one elder sister (Patricia) and one brother (Christopher). His parents both came from backgrounds of ecclesiastics, lawyers and teachers. In 1929 the family moved house to Deal, a town on the east coast of Kent. After attending a local nursery school, Michael was sent away, as was customary, to a boarding school in Winchester (The Pilgrims' School). From there, in 1939, he won a Major Scholarship to Winchester College, where he was to spend four years. In September 1943 he entered Trinity College Cambridge with a Scholarship in Mathematics. On completing the accelerated course for a BA in two years, Michael was directed to the Admiralty Research Laboratory in Teddington Middlesex, to join Group W (for Waves). Group W had been set up in June 1944 to study the propagation of ocean waves over very long distances, in view of the military operations then expected to take place in the Pacific. Group W, under the leadership of Dr George Deacon, had been spectacularly successful, and attracted international attention. Its remit had been widened to include the study of basic aspects of the sea, the environment in which the Navy operates. Michael served in Group W for the prescribed three years, before returning to Cambridge to work for a PhD. First under Sir Harold Jeffreys and then under Robert Stoneley, he continued without a break his previous work on microseisms, aided by experimental facilities in the Department of Geography. He also developed a viscous theory for the remarkable mean motion of water and sand particles due to waves in shallow water.

In 1951 Michael was awarded a Prize Fellowship at Trinity College, also a Commonwealth Fund (Harkness) Fellowship to study in the USA. He spent one month initially with Henry Stommel at the Woods Hole Oceanographic Institution on Cape Cod, where they collaborated with Melvin Stern on the theory of how to measure ocean currents electrically. He then spent eight months with Walter Munk at the Scripps Institution in La Jolla, California working on

a variety of topics. The rest of the year he spent traveling and visiting other Oceanographic Laboratories in the USA.

On returning to Cambridge he first collaborated with J.C.P. Miller and with H.S.M. Coxeter (who had been at Toronto University since 1937), on their monograph *Uniform Polyhedra*, which contains photographs of some innovative wire models constructed by Michael between 1942 and 1953.

In 1954 Michael was recruited by Dr (later Sir George) Deacon to join the newly formed National Institute of Oceanography (NIO) as a Principal Scientific Officer at Witley, Surrey. He remained there until 1967, with visiting professorships at MIT (1957–58), UCSD (1961–62 and 1966–67) and the University of Adelaide (1964).

Michael was elected as a Fellow of the Royal Society of London in 1963 for Improving Natural Knowledge. For two years, 1967 to 1969, he helped to build up the School of Oceanography at Oregon State University in Corvallis. He returned to England in 1969 to take up his appointment as a Royal Society Research Professor at DAMTP, University of Cambridge, commuting once a week to the NIO. In this way he kept in touch with incoming oceanographic data. He also held a Senior Research Fellowship at Trinity College.

During the next 20 years of his Cambridge Professorship, Michael was a Visiting Scientist at the Cal Tech Jet Propulsion Laboratory, Pasadena (1981–89) and Adjunct Professor at the University of Florida, Gainesville (1981–87). On retirement in 1987 he was briefly a Staff Scientist at the La Jolla Institute (1987–88) before appointed as a Senior Research Scientist at the Institute of Nonlinear Sciences (INLS) at the University of California, San Diego. He retired from this appointment in 2001 and since then enjoyed freedom to write on a variety of topics, mainly those with geometrical flavour.

Amongst his many discoveries, the more notable are: ocean waves produce microseisms, those tiny continuous oscillations of the ground recorded by seismographs, sometimes far inland. He showed how one can measure tidal currents in the English Channel by recording the varying voltages between points in the ground at different distances from the coast. He also discovered how underwater sound is produced in the ocean. If one lowers a hydrophone (an underwater microphone) into the ocean they hear a continuous hiss. The intensity of the hiss rises and falls with the speed of the wind, so it used to be called wind noise. It turned out that the noise is due to the formation of small bubbles of air

when wave breaks. Each bubble, as it is formed, makes a sharp click. Depending on its size and the combination of such clicks, this produces the hiss, which is now called bubble noise. Later on he discovered the existence of solitary waves of capillary-gravity type, and confirmed it by experiments. He found experimentally a new instability of steep water waves meeting a vertical wall.

Michael's other significant works include: the maximum wave impulse occurs when the wave is not at its maximum height. He showed experimentally that, when a two-dimensional turtle with wheels travelled in a wave tank, the waves over the top did not break when the turtle travelled with the waves, but if the depth is reduced and the waves break. Thus the turtle moves backwards – a brilliant demonstration of how sandbanks move forwards or backwards with oncoming waves. He wrote several innovative papers on breaking waves and waves and vortices which have had a great impact in oceanography. On the large scale of waves around islands such as Hawaii he showed how the waves produce mean circulations around the islands, which he demonstrated in the laboratory tank with Meccano and an oscillating island to model the effects of the oncoming waves. This was also a great interest to his great contemporary Sir James Lighthill (who was his peer at Winchester College and Trinity College).

He set up a private company, Dextro Mathematical Toys, to manufacture a magnetic building-block to RHOMBO. The design was patented in Europe, Asia and the USA.

Michael was married in 1957 to Joan Redmayne Tattersall (1925–2010). They had four children and nine grandchildren. On a personal note, when Michael invited me to work with him as a Senior Research Fellow at INLS we often used to have lunch together. He always told me stories about his past (some personal). He inspired me as to how to approach and solve problems in water waves and encouraged me to work with Professor John W. Miles at Scripps on wind generated waves. I had 32 wonderful years of close friendship with Michael. One quote I shall never forget, which he told me over lunch: 'ars longa vita brevis' which translates to 'art is long, life is short'. God rest your soul Michael.

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Sir David MacKay FRS

22 April 1967–14 April 2016



David MacKay was a founder of the modern approach to information theory: he pioneered the combination of Bayesian inference with artificial neural network algorithms to allow rational decision making by computer, and made key improvements to communication protocols such as error-correcting codes. His research led to a masterly book, “Information Theory, Inference, and Learning Algorithms” (2003), and underpins much of the current research area known as ‘deep learning’.

MacKay was a man of high principles: an uncompromising seeker of truth who believed in the power of rational, quantitative thought in all aspects of life. He was also a highly entertaining, enthusiastic and committed teacher. All these qualities are displayed in his second book, “Sustainable Energy: Without the Hot Air” (2008), which first quantifies the vast challenge posed by the need to overcome humanity’s addiction to fossil fuels, and then enables the reader to think clearly about how to address that challenge, through behavioural change by nations and by individuals. MacKay emphasised that small changes are not enough: his own lifestyle choices included vegetarianism, minimizing travel by car and plane, and parsimony in domestic heating. These choices echoed an ascetic upbringing whose religious basis he nonetheless rejected in adulthood.

David was committed to public service, campaigning for improvements to local transport and to the criminal justice system. He served as Chief Scientific Advisor to the Department of Energy and Climate Change (2009–2014) where he worked tirelessly to improve the quality of decision making, introducing quantitative modelling tools to educate policy makers and public alike. These include the DECC 2050 Calculator for future energy scenarios, which has since been rolled

out to a number of other countries. He was knighted for his contributions to science policy and outreach in 2016.

Among several practical inventions MacKay created “Dasher”, a system that allows people to rapidly write text using only slight motion of their eyes – or indeed by adjusting their breathing patterns. He showed little interest in personal financial gain from such work, preferring to make it freely available to all. This applies not only to Dasher but to several algorithmic innovations that are now widely deployed in communications and internet technology.

MacKay studied Natural Sciences at Trinity (matric. 1985), then gained a PhD from the California Institute of Technology before returning to Cambridge as a Fellow of Darwin in 1992. After two decades at the Cavendish Laboratory (as a professor from 2003) he became Regius Professor of Engineering in 2013. He was elected FRS in 2009 and Honorary Fellow of Trinity in 2013. His passions included music, mountain climbing and ultimate (frisbee). He was diagnosed with stomach cancer in mid-2015, and died in April 2016 at the tragically early age of 48.

David MacKay married Ramesh Ghiassi in 2011; she survives him with their son Torrin and daughter Eriska.

Michael Cates (2016)



A Ninetieth Birthday Speech

John Davidson (1957)

20 February 2016

Master, this event is an unexpected pleasure. The fact that I have lasted so long, in reasonably good condition, owes much to the benign influence of the College. This in turn depends upon the College Staff who look after us so well. I would like to pay tribute to them: the Porters, Bedmakers, Gardeners, Works Staff, Office Staff, Cooks and, last but not least, the Waiting Staff: here I should mention Maria; we shall miss her very much when she retires later this year.

In my 80th birthday speech, I spoke about my grandparents, but it was observed that I didn't say much about my parents. They were born in the 1880s and met in 1911 in romantic circumstances, at the top of a mountain railway on Mount Pilatus near Lake Lucerne in Switzerland. They were evidently on an early 'package holiday'. I have a group photograph from which it appears that they must have been very uncomfortable in the hot Swiss summer: the ladies were all shrouded from head to foot, with big hats. My father, like the other gentlemen, was wearing a high collared shirt, with a tie, and a three piece woollen suit, with a trilby hat.

My parents were extraordinarily restrained: they corresponded for nine years; letters were very important in those days. They eventually married in 1920. No doubt the delay was partly due to the war: my father was in the trenches. My son Peter was, at an early age, rather upset when I pointed out that his two grandfathers were on opposite sides. My wife's father – like many Jews – was a *Kriegskampfer*; I still have his military papers.

My father was apprenticed as a warehouse clerk. I still have his indenture document, beautifully written in copper plate. *'This indenture witnesseth etc.'* Jobs were very scarce in the 1930's in Newcastle so he was fortunate to have a job with the Newcastle Council: at one stage he may have been a rent collector, which must have been a ghastly job.

My mother also had a career. She had a good general education at Rye Collegiate School. I have her school prizes: handsomely bound volumes of Longfellow, Shelley, and Milton. She became a schoolteacher at the age of eighteen by the simple expedient of standing up in front of a class, without any formal training. She taught in country schools in classes with a range of ages, not easy. This experience was

subsequently useful. In 1939 she was evacuated from Newcastle, with a brood of children from the slums, to Cumberland where she taught in a country school. I think she must have got bored with Rye: its parochial nature – where everybody knew everybody's business – is well described in the novels of E F Benson. So she decided to teach in London. She said her father looked grave when she explained where she was going, to a school in the East End of London, near Commercial Road. The school was in Senrab Street, still on my London map. No great scholarship is needed to discover the origin of the street name: it commemorates the name of a local building contractor, Barnes, spelt backwards. The school turned out to be satisfactory. Many of the children were Jewish, from refugee families escaped from the Ukraine. Some of them were beautifully dressed, because their fathers were tailors. Mother endured the first Zeppelin raids, which were in daylight. I was told, by a cousin, that mother played the piano loudly to drown the noise of guns and bombs. After a raid, the school was besieged by hysterical Jewish mothers, anxious about their little ones. Later, I had direct experience of a hysterical Jewish mother – and a jolly good mother she was.

My mother decided she needed formal training, so she left the East End school and enrolled at the Goldsmiths' College to become a trained certificated teacher. Things were different in those days. I have a certificate relating to an examination about French. It bears a large rubber stamp with the message '*Passed, though without distinction*'. My mother's teaching certificate turned out to be invaluable. My father died when I was aged nine. My mother almost immediately got a job in a Newcastle school, for which the Certificate was indispensable. No one has ever had to persuade me about the desirability of careers for women. As in London, my mother taught in the most deprived areas of Newcastle, Scotswood Road and Byker, near armament works and shipyards. Unemployment in the 1930s was highly visible: thousands of men idle in the streets. Near her school were rows of dingy houses. If a house was unoccupied for a significant time, sounds of sawing were heard and the house would be stripped to the brickwork. Yet my mother never felt threatened. She would be greeted in the street by young people whom she had taught as five to six year olds in classes of fifty to sixty pupils. I myself was in a class of fifty-four at the Elementary School: not a description in vogue with modern educationalists.

I owe much to Newcastle Education Authority. My school, opened in 1928 by George V as a secondary school, became a grammar school following Rab Butler's Education Act; now it's a comprehensive school. In my day the teachers were excellent. The Senior Mathematics teacher was a trained naval architect:

his Professor was an FRS. He taught statics and dynamics with a rigour that is invaluable to this day. But the Education Authority had the drawbacks of bureaucracy. When I entered the sixth form, I decided to be an engineer. The school did not teach engineering drawing, so I enrolled in an evening class. In the autumn there were about thirty students – mostly apprentices from shipyards and engineering works. By the following spring the class had dwindled to single figures, so I didn't feel I was a strain on the system. But the following autumn, when I wanted to enrol in another class I was informed this was forbidden: a full time pupil at a Newcastle school was not allowed to attend evening classes.

I should say a little about my academic career. I have always found that research, teaching and administration are complementary: skills developed in one area are useful in another. When I was Steward, I found that my notices and reports to Council were subjected to textual criticism; very useful as a stimulus to writing unambiguous prose. Another stimulus towards clarity is writing examination questions. Many of you must have experienced the Examiner's nightmare: half an hour after the start of an Examination, the brightest student in the class puts up a hand and says 'I think there's something wrong with question five'. Such mistakes have an effect of lasting years: generations of students working through the examination papers are not slow in pointing out errors and ambiguities. The ability to write clear prose is important for research and likewise clarity of presentation at seminars and conferences. This is well cultivated by giving undergraduate lectures. The training is a good way of following the biblical precept, appropriate for Lecturers, that they should be '*wise and eloquent in their instructions*'.* In modern jargon, these words might be included in the job descriptions for University Teachers & College Lecturers.

My most successful research began with an undergraduate project to find out if a bubble in a fluidised bed behaves like a bubble in water. The similarity is best illustrated by a simple experiment on a bubble rising in a tube: the bubble motion is controlled by the tube walls. The rise velocity is proportional to the square root of the tube diameter. The experiment – comparing a bubble in water with a bubble in fine powder – depends upon getting sufficient air into the interstices of the powder. When the powder is thus aerated, a large bubble rises through the powder at the same speed as in water. This started from an undergraduate teaching experiment, reinforcing the comment – many years ago – by an American visitor highly distinguished in research – that 'We wouldn't be in business without the students'.

*King James's Bible: *Ecclesiasticus* Ch 44, verse 4.



An Eightieth Birthday Speech

Professor Robin Carrell responded to the College's toast to his health on 24 April 2016

Master: thank you for your kind words of introduction and for proposing this toast.

The question that I keep being asked in College, is 'how did the shift from New Zealand to Cambridge come about?' And indeed I think my greatest challenge in life was in this transplantation of a teen-aged family over a distance of 12,000 miles. So I am especially grateful for your hospitality in inviting tonight, with their spouses, my three brothers who stayed in New Zealand, my four children who made the shift, and most of all, my wife Sue, to whom the success of the resettlement of the family is wholly due.

The Land that I grew up in is summarised in two lines in my father's diary, written when I was three years old.

Sept 2nd 1939: *Germany has invaded Poland. War is terrible. Why can't we have peace forever?*

Southland beat Canterbury 10–8

The New Zealand of my early childhood, was a land distant to everywhere. A post-pioneering community of quiet contentment. A community ruefully described by the philosopher Karl Popper, a University lecturer in Christchurch, as '*abgeschnitten*, cut away from the world".

The generations of my grandparents and great grandparents had arrived with the surge of settlers from Britain in the 1850s to 60s. Their grow-it-yourself, almost cash-free life was epitomised by the household into which I was born, that of my grandfather, a blacksmith. It was in this self-sufficient household that my mother and father lived for the first seven years after their marriage in 1931 and where the first three of their four children, all boys, were born. These were the years of the Great Depression during which my father was periodically out of work, from farming to railwayman. It must have been a stressful time, with a crowded house and all the more so with the presence in the back room of my 97 year old great-grandfather, a Cornishman and one-time seaman in the Crimean war.

In 1938, we shifted to a newly-built house in idyllic isolation on the rural edge of the growing city. It was a long walk each morning to the school in Spreydon my great grandfather had helped found and where my mother had been dux. My mother bitterly resented, as a girl, having to leave school at twelve years old and clearly hoped that we would go on to further education. A first step was to ensure we enrolled in, not the local secondary school, but the one across town with a special academic reputation, the equivalent of an English grammar school, Christchurch Boys' High School. There I was streamed with a cohort of four, with shared aspirations and energy. As friends we threw ourselves into our schooling, did our National Military Service together, and then cruised through medical school, at Otago, in the South of NZ.

The two years following on from graduation, as resident house surgeons, are years that stay with a doctor forever. We were at the frontline of medicine, in Christchurch Hospital, responsible for our patients seven days a week and round the clock. It was not all work. There was skiing, swimming, and trekking. It was too the socialising time of life. Nursing in Christchurch was an occupation for young ladies. Prim, smiling and irresistibly attractive, swishing by with starched white aprons, cuffs, collars and caps. Hearts were stirred.

The social event in the hospital year attended by everyone, from the most crusty Consultants to the most recent medical student, was the House Surgeons' Christmas party. It was an evening of entertainment as well as partying, with central to it our skits parodying the foibles of hospital life. We were fortunate in having in our year talented mimics and comedians. Another was an audio expert and the music was always first class. The parties were great fun and invitations much sought after.

Socially inept as I was, it was here that I learnt lessons as essential to an academic as they are to a doctor, in how to deal with the real crises of life! At the end of my student year in Christchurch I had been much taken, smitten you could say, by a newly arrived trainee nurse, Susan Rogers. Pretty and outgoing, with a soft smile, we met on several occasions and plucking up my courage I invited her to the House Surgeons' party. In doing this I had quite forgotten that I had been approached some time earlier by Scotty, a Surgical Registrar, who had just realised that he would be on-call for the night of the party. He nevertheless planned to attend but I agreed that if he was called out I would look after his girlfriend June, also a nurse, until his return.

On the night, however, all went awry! Scotty rang hurriedly to apologise: there had been two traumatic road crashes and he would not be able to make the party, adding he had arranged with June for me to collect her at the Nurses Home in half an hour's time! It could not have been worse, not only was I committed to taking two attractive young ladies to the same party but in doing so I was breaking the strictest of hospital protocols – June was the Staff Nurse on Ward 4 and Sue its Junior Nurse. Calamity, and a time for quick thinking! There were two Nurses' Homes, the Old and the New, both nearby. I hurriedly left to meet Sue at the Old Nurses Home and escort her through a side door to the party in the House Surgeons' residence and then, with a mumbled excuse, dashed to the New Nurses Home to escort June through the other door. It was not all bad, as I received totally undeserved credit, with knowing-winks, from my more worldly seniors.

June was as good natured as she was good looking and the farcical hilarity of the situation was soon explained and shared with Sue. It turned out to be a memorable night, with a happy outcome for all. June and Scotty married a year later, as in a further year, in January 1962, did Sue and I.

At the start of our married life I found myself in post in Christchurch Hospital as a Junior Orthopaedic Registrar. Apparently I had gained a reputation for the setting of fractures in the out-patient clinic. The training pathway in all the surgical specialties is rigidly defined, extending like a train track, over years, from post to post, with distantly at its terminus a consultantship. A consultantship that would in Orthopaedics bring with it the prosperity aspired to by all young men in New Zealand in the 1960s, of a Jaguar and a power boat.

One morning in the Operating Theatre, there was an unexpected epiphany, out of the blue and not presaged by any forethoughts. Just after the start of the session I looked across the theatre and read and re-read the blackboard: L neck of femur, bunions L foot, tendons R hand, & R neck of femur. I cannot explain what happened next, but a shivering wave spread from foot to head and down again. With that came a panicking thought, "Ye Gods, I am going to be doing this for the rest of my life!" There is a buried computer within our minds, beyond our comprehension, that monitors and advises on our lives and decisions. It was right of course, this was not what I wanted to do nor was it what I was best suited to do. Directly after the session, I gave notice of resignation from the Orthopaedics post and then diffidently told Sue of my decision. Her reply was succinct and only too true, "Well, there goes the Jaguar!"

What I really wanted to do surfaced. The challenge was a realisation that in medicine we are repeatedly being presented with clues as to the processes of life, clues we label as diseases but which are also unique experiments of nature. It was clear to me that, if we could determine the molecular basis of a disease, then this should also provide insights into mechanisms in health. With this in mind I enrolled then and there for a full time degree course in Chemistry and three years later found myself on board a ship, with a scholarship, with a wife and with two infant daughters, all bound for Cambridge.

My attachment in Cambridge was with Hermann Lehmann, who became the University's first Professor of Clinical Biochemistry. He was exceptionally kind and hospitable but had not realised that University-arranged accommodation was only available subsequent to registration as a graduate student – a lengthy process if arriving halfway through the English academic year. So February 1965 saw a Dickensian scene: sludgy snow all around, a totally unheated house, the only one we could get, beyond Barton, and on a sofa in the living room beneath piled sleeping bags, Sue and the two girls, sobbing their hearts out with the cold. I was galvanised into making one of the boldest decisions in my life. Without funds, we bought then and there a newly constructed terrace house in Chesterton, warm and spic & span, by the river Cam. Perfect for a young family. Not long after that, the phone rang, from Sir Frank Young the Professor of Biochemistry, who had recently become the Master of a newly established graduate college. A week later and I was receiving a memorably warm welcome as the first student of Darwin College.

Professor Lehmann's fame came from his pioneering studies of the genetic abnormalities in haemoglobin, the red oxygen carrying protein in blood. For my PhD he suggested the determination of the molecular abnormality in a selection of the genetic variants of haemoglobin that were constantly being referred to him. But instead I opted to investigate some strange cases of an inherited anaemia arising from the sudden breakdown of the red cells of the blood, which seemed perplexingly due to unidentifiable abnormalities of haemoglobin. Pursuing this over the next three years was extraordinarily rewarding. Five papers in *Nature* from the three years of research, with the culmination being the realisation that the strange abnormalities we identified in haemoglobin resulted in the oxygen it carries being released not as molecular oxygen, but as an activated oxygen radical. It was these toxic oxygen free-radicals that were destroying the red cells and causing the onset of a sometimes fatal haemolytic anaemia. The finding had much wider implications.

At the end then, of three happy and worthwhile years in Cambridge, we all returned to NZ, with no thought whatsoever other than spending the rest of our days there. Back working in a hospital in Christchurch NZ, my interest in haemoglobin flourished, as best illustrated by two spin-offs of the research. The first was in developing a standard to allow the accurate measurement of the different fractions of haemoglobin that are diagnostic of a number of common diseases. The stabilised haemoglobin standard prepared for use in Christchurch was appreciated by colleagues elsewhere and then by their friends and so on. With the approval of the Hospital, a capital investment of NZ\$100, an electric typewriter, a Post Office Box, and with tongue in cheek, a company was formed. Its products in Christchurch, now marketed under their own labels by Roche, Siemens, Beckman and others, provide, worldwide, the calibration for the 500,000 blood tests a day that diagnose and monitor diabetes.

Another consequence of my haemoglobin research had its roots many years earlier, as an eleven-year old, at Spreydon school. Our teacher then, Mr Montgomery, had just returned as a young fighter pilot from the Pacific War. He really did believe in the deeper issues that he had seen his friends die for. He taught us the importance of logic and of independent thought. Question what you read in the papers. Check and seek to find the real truths. My life would have been simpler but less worthwhile if I had ignored his final injunction: never tolerate or pass by an injustice.

This lesson bothered me thirty years afterwards as I sat reading the newspaper, in the sun, on our verandah looking out on the snow covered Southern Alps of NZ. The bother was on reading of a young mother, Lindy Chamberlain, in Queensland Australia who had just been sentenced to life imprisonment with hard labour for the killing of her infant daughter. Her plea that her daughter had been taken by a wild-dog was overruled, with her conviction being substantially based on the finding of infant-blood splashed over the dashboard and on the plastic seat of the family car. The more I thought about it the more it bothered me. I knew the infant-form of haemoglobin to be relatively unstable, how could it be identified with such certainty after six months exposure to the Queensland sun? Taking up my pen I wrote to a contact of the defence lawyer to tell of my incredulity and of a wish to see a copy of the evidence on which the identification was based. To shorten a long story, this was the commencement of a series of appeals that culminated with the incontestable evidence that the splashed 'blood' on the dashboard was not blood at all, but factory underspray paint coming through

an unsealed floor grommet! In the meantime an innocent woman, a pregnant mother, had been imprisoned with hard labour for years, with her newborn child being forcibly removed from her.

Bizarrely, during this whole period there was scornful criticism of me for, as it was put, 'second-guessing the verdict of an established court', in a far distant affair. But there was nothing far-distant in my next battle against injustice, which originated virtually outside my office door in Cambridge. In the 1990s, Jean Pierre Allain the newly appointed Professor of Transfusion Medicine in the University of Cambridge was falsely accused of knowingly allowing the use of infected blood. He was imprisoned in France after a series of trials in the midst of public and journalistic hysteria, trials that bring shame to the name of justice.

To its everlasting credit, the University of Cambridge, its Regius Keith Peters and Vice Chancellor David Williams, supported Professor Allain and his professorial salary was paid throughout. A French justice official, writing to me in confidence, told me of the chagrin there on receiving official mail addressed to Allain as Professor of Transfusion Medicine, University of Cambridge, at his prison address!

The fundamental justification for our existence as academics, whether in the sciences or the humanities, is as bulwarks against irrationality. Just how sadly irrational events in Paris were was illustrated in my final interview with the French prosecuting magistrate. She admitted to me in the end that the case against Allain was baseless. Then looking out of her office window she waved her arm wearily 'but there is such anger out there'!

In my life in research there have been two outstanding mentors. A first was Max Perutz. My initial interactions with him came in 1965 with the placement of the mutations I had identified on the molecular model not of haemoglobin but of myoglobin. Max Perutz's great achievement in my mind was not so much in the determination of the structure of haemoglobin as in his demonstration with the globins that the structure of any one member of a protein family provides a template for all the family, diverse though their functions might be. It was a principle that was to underpin my research as also was a precept of my other mentor, Professor Carl Bertil Laurell in Sweden. He showed me how medicine provides us with experiments of nature which, if followed up provide, not only answers to the questions we ask but also to the questions we had not thought of asking.

Laurell had discovered a variant form of a blood protein, commonly present in Europeans, which intriguingly predisposed to both lung and liver degeneration. It was, to me, an ideal candidate for the technologies I had used to research the molecular mechanisms of the haemolytic anaemias. My work on this variant blood protein was well underway in Christchurch, until one night in 1976, fast asleep, the phone rang at 2am with a call from Max Perutz: Would I come back to a tenured post in Cambridge? Awaking that morning, Sue turned to me and said “That phone call in the night, what was it you agreed to do?”

Three years later and 12,000 miles away, I realised the truth in the old adage: that Cambridge is a place to be young in or to be old in. Our work, on Laurell’s blood protein was revealing the underlying abnormalities and clearly had wider implications. Kind and welcoming though colleagues were in Cambridge, there was not the support needed to get underway what was then shaping up to be a whole new field of studies. Reluctantly, I resigned my lectureship and moved back, this time to a professorship, in NZ. I now got the support and students needed to show that what we had discovered was indeed a whole new family of blood proteins. A family we called the serpins, a family that controls critical living processes: coagulation, tissue growth, immune activation, hormone release and so on.

A breakthrough in the field came with the solving, by Robert Huber in Germany, of the template structure of a member of the family. With this template we were immediately able to depict each of the serpins in its full three-dimensional structure. The question remained, however, as to why this one family of proteins had been selected to control the diverse pathways of life. An answer came whilst on sabbatical at St John’s, walking back from Evensong one evening. What clicked into place was the realisation that the selection of the serpins was due to their unique ability to reversibly change their shape and with that to modify their function.

To take the research further clearly required a switch to a structural, crystallographic approach. An opportunity to do this crystallised so to speak, with my appointment in 1986 to the Professorship of Haematology, in the MRC Centre in Cambridge and with that to a Professorial Fellowship in Trinity. With support from Andrew McLachlan and with graduate students who joined me in Trinity, Penelope Stein and David Lomas, the first new structure for five years in the MRC Laboratory of Molecular Biology was solved. This strengthened our concept of the mobile molecular structure of the serpins and opened an

understanding of the way in which the common inherited mutation of a blood protein in Europeans results in lung and liver disease.

The combination of structural deductions and experiments of nature provided a powerful new approach. Further structures, with a new post-doc, Jim Huntington, showed how changes in the shape of serpins control the coagulation of the blood. Here we were able to shortcut months of experiments in being able to directly validate our structural results. Confirmation came from the Outpatient clinics, by the identification in cases of familial thrombosis, with my Clinical Registrar Trevor Baglin, of mutations precisely as predicted from our structural studies. This then was a bonus approach to research: we deduced the structures and Nature did the experiments! Central to the success of this approach was the integration of molecular and clinical research; an investment then that has recently benefitted the endowments of the University, with the development now by Huntington and Baglin of a new generation of anticoagulants.

A subsequent further cascade of functional and medical insights followed, based on other members of the serpin family, some just requiring thought, pen, paper, and basic computation. Convincing answers came to the questions we asked and insights came to questions we had not thought of asking. Then out of the blue came a remarkable compliment, a compliment I could well have done without. Our description of the change in a serpin that controls tissue development was so exact I was formally charged with having prior knowledge of its crystal structure. The charge was as ridiculous as it was obnoxious. But coming from the Fount of All Molecular Knowledge, the charge did great and lasting harm. It was accompanied by a challenging denigration of our general proposals of a family of molecules that could inherently and purposefully change their shape.

How could we counter this? There was only one way, this was to show in video form, at atomic definition, a change in molecular shape that was occurring in a millisecond. It was a daunting challenge. It took ten years unremitting work to achieve, with my colleagues James Whisstock, Arthur Lesk, Jim Huntington, Aiwu Zhou and Randy Read, crystallographic frame by frame. The completed result when shown was stunning, definitive and unequivocal, but by then our critics were nowhere to be seen!

The work of our group has now come to full fruition. The detailing of the initial step that controls blood pressure has provided unexpected insights into the crippling complication of pregnancy – pre-eclampsia. An aberration of the molecular

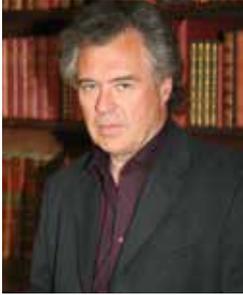
mobility of a serpin in the neurones of the brain has revealed intracellular changes that underlie dementia. Most recently, and just completed, we can now see how other serpins in the blood fine-tune the release of hormones and how they switch the body into overdrive when inflammation or infections occur. Unexpectedly, to my delight and bemusement, the molecular changes in shape also show us how dormice manage to survive and indigenous Australians to thrive!

Master, I have outlined a journey from my land of birth, with travels and travails as well as triumphs. My independence throughout has been supported by the University of Cambridge. My gratitude to this College, and not least to the Catering Staff for the splendid dinner tonight, may perhaps be best epitomised with this closing anecdote.

One evening I met in the parlour Sir James Meade, a winner of the Nobel Prize in Economics. He explained that he had just been made an Honorary Fellow and asked if I could show him the procedures for dining. Sitting at dinner, looking down the Hall, he turned to me and said “This is the greatest honour of my life”. “But you have a Nobel Prize” I replied. He thought for a moment then turned and said, “No, for me the Fellowship at Trinity **is** the greatest honour.”

And, Master, that speaks for me too.

College Notes



Undergraduate Admissions 2016

Adrian Poole, Tutor for Admissions

We received a total of 1079 applications for regular undergraduate places in 2016 and 2017, a return to the high level of two years ago. Over the last five years our applicant numbers have bounced up and down, but the proportion of Arts/Sciences has remained fairly stable. We invited for interview over 70% of our applicants and made offers to 246 of them. A small but significant number (15) declined our offers, mostly in favour of the US; one of the three EU candidates to decline specified Brexit as his reason. Of the remainder, nine out of ten met the conditions we set them (or had already achieved them), so our first-year intake this October will be 204. The success rate of applicants gaining a place at Trinity remains about 1 in 5 overall, though this conceals differences between more popular subjects, including Economics, Law, Human, Social and Political Sciences, Computer Science and Engineering, and a number of subjects in the Arts and Humanities, including Classics, English, Linguistics, Modern Languages and Music.

The proportion of entrants on the Arts side this year is 42% and on the Sciences 58% (a slight narrowing of the gap from last year). The actual numbers of Home students admitted on the Arts side (65) and on the Sciences (67) are similar but subjects on the Sciences side attract a much higher number of applicants from the EU and Overseas. Slightly more than one-third of our total intake is comprised of entrants from the EU (12% in Arts subjects, 18% in Sciences) and from Overseas (18% in Arts, 28% in Sciences). With the UK's prospective exit from the EU this is certain to change, though quite how sharp an immediate drop in applicant numbers we should expect in the forthcoming round is unclear. Of the 30 or so countries sending us entrants from outside the UK, the Republic of China is the clear leader followed by Romania, Serbia, Singapore and the US.

The proportion of Home applicants and entrants from independent and maintained schools shifts up and down, but over the last three years it averages about 55% from the maintained and 45% from the independent sector. We continue our efforts to attract more applicants from a wider range of schools and backgrounds

through initiatives designed to widen participation, in which our Schools Liaison Officers play a leading role, along with many enthusiastic student volunteers as well as teaching Fellows. Women continue to make up about one-third of our intake, comprising at least half of our students on the Arts side but very much less on the Sciences. We must hope that initiatives such as the residential course for 'Women in STEMM subjects', run for the first time this summer and due to become an annual event, may do something to shift the balance.

Of those candidates taking A-levels who have confirmed places, all achieved at least one A* grade, 93% gained at least two A*s and 72% achieved three or more A*s. The average number of A*s for our successful entrants was 3.0, though the figure is significantly higher in the Sciences (where many candidates take more than three A levels) than in the Arts. Comparably high standards were achieved by entrants taking other school-leaving examinations including the Pre-U, the International Baccalaureate, and other Baccalaureate-type exams. We put a substantial number of applicants into the inter-Collegiate Pool., both in January and in August, many of whom find places at other Colleges.

In the coming admissions round we face several major uncertainties. One is the immediate effect of Brexit on our applications from the EU; another is the effect of the new assessment regime on our applications as a whole. We shall be participating for the first time, along with all other Cambridge colleges, in a process that involves candidates, in all subjects except Mathematics and Music, taking either a 'pre-interview' or an 'at-interview' written assessment that will supplement the other evidence on which we have grown used to relying, including public examination results achieved and predicted, school reports and personal statements, sample written work, forms of testing (in certain subjects) immediately prior to interview, and interviews themselves. We shall give careful consideration to the effectiveness of these new assessments and the arrangements for conducting them.

Resident Numbers of undergraduates 706; graduate students 360.

Graduate Studentships

Internal Graduate Studentships

Saskia Barnard, MPhil in English Studies

Leran Cai, CPGS/PhD in Computer Science

Jiraborrirak Charoenpattarapreeda, PhD in Chemistry

Dominic Edwards, MPhil in Architecture & Urban Studies

Helena Fallstrom, MPhil in Social Anthropology

Amalie Fisher, Master of Music

Elissa Foord, MPhil in Classics

Stefan Lacny, MPhil in Euro., Lat. Amer. & Comp. Lit. & Cult.

Nakaran Lohitsiri, PhD in Applied Mathematics & Theoretical Physics

Cathy Mason, PhD in Philosophy

Ed Millband, MPhil in Classics

Ekaterina Morgunova, MPhil in History & Philosophy of Science & Medicine

Owain Park, MPhil in Music Studies

Felix Schafner, MPhil in Finance & Economics

Harry Stockwell, MPhil in World History

Ryan Turner, GRDIP in Legal Studies

Jack Wearing, MPhil in Philosophy

Talia Zybutz, MPhil in International Relations & Politics

External Research Studentships (ERS), in some cases Honorary, were awarded to the following graduate students matriculating in 2016, in order to pursue research at Trinity in the fields indicated:

Ms Parwana FAYYAZ (Afghanistan), Stanford University, PhD in Asian and Middle Eastern Studies;

Miss Esther C S HARRIS (Australia), University of Sydney, PhD in Early Modern History;

Miss Beth L D KITSON (UK), University College London, MPhil in Economic and Social History;

Miss Kristina T KLEIN (Germany), Fudan University, (Honorary), PhD in Zoology;

Miss Eszter S PÓS (Hungary), Katholieke Universiteit Leuven, PhD in Chemistry;

Mr Marvin T T TEICHMANN (Germany), Karlsruhe Institute of Technology, (Honorary), PhD in Engineering;

Ms Koyna TOMAR (India), Fukuoka Women's University, MPhil in World History;

Mr Hans YU (China), RWTH Aachen University, (Honorary), PhD in Engineering.

Other External Studentships have been awarded as follows:

Ms Georgina E BAKER (Australia), University of Melbourne, Trinity Overseas Bursary, MPhil in Management (Judge Business School);

Mr Anton BALEATO LIZANCOS (Spain), Columbia University, Studentship in Mathematics, MAST in Applied Mathematics and Theoretical Physics;

Ms Priyadharshini DEVENDRAN (Australia), Monash University, Trinity Overseas Bursary, MPhil in Criminology;

Ms Olga Y FABRIKANTOVA (Russia), Ridley Hall, Studentship in Theology (Honorary), PhD in Divinity;

Ms Jelena GLIGORIJEVIC (New Zealand), University of Canterbury, Hollond Whittaker Research Studentship in Law, CPGS in Law;

Miss Emily GORDON (Australia), University of Western Australia, Hollond Whittaker Research Studentship in Law, CPGS in Law;

Ms Christina HAMBLETON (Vanuatu), Denison University, Schilt Studentship, MPhil in International Relations and Politics;

Mr Aron D KOVACS (Hungary), Eötvös Loránd University, Eastern European Bursary, MAST in Applied Mathematics and Theoretical Physics;

Mr Gyujin OH (Korea), Stanford University, Studentship in Mathematics, MAST in Mathematics and Mathematical Statistics;

Mrs Solene C ROLLAND (France), Ecole Nationale Supérieure de Chimie, Knox Studentship (Honorary), PhD in Molecular Biology (MRC);

Mr Lorenzo ROSSI (Italy), University of Perugia, Sheepshanks Studentship in Astronomy, MAST in Applied Mathematics and Theoretical Physics;

Mr Alexander M RUSSELL (US), University of Virginia, Lenox-Conyngham Scholarship, MPhil in Sociology;

Mr Syed Waqar Ali SHAH (Pakistan), Lahore University of Management, Studentship in Mathematics, MAST in Mathematics and Mathematical Statistics;

Mr Samuel E SOKOLSKY-TIFFT (USA), Harvard University, Eben Fiske Studentship, PhD in History;

Mr Jakab TARDOS (Hungary), Eötvös Loránd University, Eastern European Bursary, MAST in Mathematics and Mathematical Statistics;

Ms Rita B D TEIXEIRA DA COSTA (Portugal), Instituto Superior Técnico, Studentship in Mathematics, MAST in Applied Mathematics and Theoretical Physics;

Mr Duncan A G WALLACE (Australia), Australian National University, Henry Arthur Hollond Studentship in Law, Master of Law;

Mr Joseph L WATSON (UK), University of Oxford, Neuberger Studentship, PhD in Molecular Biology (MRC);

Ms Olga ZADVORNA (Ukraine), University of Oxford, Krishnan-Ang Studentship, PhD in Physics.

The Chapel 2015–16

Michael Banner (2006), Dean of Chapel



The first of this season's Annual Gatherings fell on July 2nd – the day after the 100th anniversary of the beginning of the battle of the Somme, one of the most sustained, deadly and, as many have seen it, pointless engagements of the 1st War. At the Evensong which preceded dinner, it seemed more than merely appropriate to recall that battle, in which, of course, many Trinity men died. The scale of the memorial to the Trinity dead from that war never fails to amaze me.

There are at the east end of the Chapel, 14 panels with some 30 columns of names, with roughly 20 in a column, giving a total of 619. These panels record, of course, only those who perished. Many others, obviously enough, sustained injuries, physical and mental, which would have marked them for the rest of their lives. But even the number of dead is large enough to surprise or shock – especially when put in the context of a typical admissions cohort in the years leading up to 1914 of approximately 195 per annum.

As an 18 year old, I don't think I was especially moved by a memorial in my own undergraduate College, where the scale of loss was similar. I have found myself wondering why that was so. One explanation, which I do not dismiss out of hand, is that I was a deeply unimaginative and unempathic 18 year-old. Another is that it is only as we look back from a later age that we have a lively sense of what of the loss of the years after 18 or 19 means – only as we have lived through our twenties and thirties and so on, do we appreciate what was actually lost through premature death of by all those fresh-faced 2nd Lieutenants.

The drift of these thoughts, which I shared at the Evensongs at the first and subsequent gatherings before remembering Trinity's war dead in our prayers, was not to try to render melancholy the otherwise happy occasion of a Gathering. It was instead meant to encourage a sense of thankfulness amongst those of us, full of years, coming together to recall not just a particular matriculation year, but all that has been experienced and enjoyed in the however many years since.

Thankfulness is at the heart of Christian thought and practice – or at least should be – and the Chapel's work throughout the year has this at its centre. That work

relies in particular, as ever, on the service of the College's Chaplains, and at the start of the academic year 2015–2016, we had, somewhat unusually, two new Chaplains beginning at the same time. Andrew Bowyer was ordained and served a curacy in Australia, but came to us via Ph D studies in the University of Edinburgh. Kirsty Ross was ordained in England, but studied and served in Australia. They both bring vision, energy and enthusiasm to their work, as well as fresh antipodean perspectives, for which we are thankful.

From the Senior Bursar

Rory Landman (2006)



The Senior Bursar's office looks after the College's investments and its Trust Funds. The team remains busy administering the College's investments, collecting the College's rents and disbursing Trust Funds.

The team comprises Vanessa Stagg and Dawn Stonebridge in general administration, Andrew Manning on disbursements, and Phil Collins and Ruth Hefford in Estates and Securities.

The team has been occupied with new building this year, particularly with the new John Bradfield Centre at the Cambridge Science Park which will have room for over 600 desks targeting new businesses and scale-ups. The aim is to create a long term sustainable pipeline of Cambridge based high growth tech businesses. Planning for new housing has also been busy, with the College promoting major developments at Dunsfold, Bexhill, Felixstowe and Fakenham.

From the Junior Bursar

Rod Pullen (2006)



By the time that the Annual Record 2016 is published, I shall be a few weeks away from retirement after 10 years as Junior Bursar. At the time of writing my successor, Jonny Bourne, has already started at Trinity as “Assistant Bursar” and will move to the hot seat on 1 January 2017. The last year has also seen a number of changes at the Head of Department level among staff with Fiona Holland (herself an alumna of the College) taking up a new post as Communications Officer; George Townsend retiring at Christmas 2015 to be replaced by Duncan Malthouse-Hobbs as Head of IT; the retirement in summer 2016 of Lucia Bramwell and her replacement by Joanna Hayward as College Housekeeper; and finally the departure of Jennifer Garner as Director of Alumni Relations and Development whose successor is anticipated to start early in Michaelmas Term 2016. Looking forward to 2017, Georgina Salmon will retire as Head of Personnel (not Human Resources, a phrase which both Trinity and she have eschewed).

In their own way these changes provide a vignette of the essential nature of Trinity, in its continual renewal and evolution to meet a changing environment whilst at the same time valuing tradition and remaining constant in its commitment to provide opportunity at all levels to those who are academically gifted. In the words of the previous Vice-Chancellor, writing in 2010, Trinity is “a College like no other”.

The job of the Junior Bursar is thus to ensure that those aspects of the College for which the post is responsible continue to provide a service which is, in the phrase of the moment “fit for purpose” in support of the core academic activities of the College. This applies not only to the buildings, but also to other infrastructure, virtual and real, and to the structure, organisation, and ethos of the support staff.

I have commented in past copies of the Annual Record on the challenges of this for the College’s estate of Listed Buildings, largely at Grade 1. The refurbishment of New Court is now complete, but continuous maintenance of College buildings remains essential. The Buildings Committee is also now looking at Angel Court as perhaps the next area of major refurbishment, with the very considerable

challenges of refurbishment to Whewell's Court looming on the horizon. Longer term possible projects for redevelopment are the Brewhouse area, and the facilities at Old Field. Both are being studied by working groups in the College chaired by the Master.

The period of my tenure as Junior Bursar has also seen considerable development of the College's IT hardware and software systems. IT is now the essential medium for almost all College communications and administration of accounts, records, and other day to day business within the College and beyond. Ensuring that we have modern systems that are both resilient, and with well-established and consistent procedures, is an ever growing need, especially with the dangers of data hacking. As for most of the world, the digital age provides an opportunity, but also an enormous challenge not least as the pace of change requires us to implement within decades, if not years, systems of record keeping to replace those that were paper based and had evolved over centuries. There is still much to do in the College on this.

One particular area to which we have given special attention over the last year is in Business Continuity Planning to identify clearly the potential risks of all sorts to the College and to develop contingency plans and processes for how College activity could be maintained. Advised by expert consultants in this, our approach is not to develop detailed plans for specific eventualities, since should a serious incident arise it will almost certainly not be precisely as had been predicted, but rather a framework involving all relevant elements of the College to deal with a broad spectrum of generic possibilities. The Plan has now been tested twice in increasingly realistic exercises, and a further exercise is planned for December 2016.

The unexpected (at least by me) referendum result on "Brexit" has also had significant impact not just on academic activities in the College, but also with our support staff who are a highly diverse, multinational group. We have provided reassurance to our existing staff that we shall do all possible to support them during a period which has, inevitably caused a degree of nervousness among many.

Looking to the future, I see no slackening of the pace of change; the ever increasing expectations of Fellows and students; the demands of legislation; and thus the tasks for the next Junior Bursar. I wish him well.

The Library

Nicholas Bell



The last year has been an eventful one in the library. David McKitterick retired as Librarian on 30 September 2015 after 29 years. Shortly before his retirement, the College received notice that it had received a bequest from Mary, Duchess of Roxburghe, of the library formed by her father and grandfather, both members of Trinity. Her grandfather was Richard Monckton Milnes, Lord Houghton, whose papers the College had received some time ago, and whose wide social contacts enabled him to assemble one of the finest private libraries of its kind, with particular interests in French political history and nineteenth-century English literature. His son, the Marquess of Crewe, broadened the scope of the collection in several further areas. Shortly before Christmas three of us spent two days at the Duchess's house in Surrey, West Horsley Place, selecting more than 7500 volumes for addition to the College's collections. Much time has been spent since then in sorting, cleaning and repairing the books, which have been fitted into two bays of the Wren Library. A fuller account of this remarkable collection will appear in a future volume of the Annual Record, once the books have been catalogued.

In addition to this major bequest, the College was fortunate to have been allocated three volumes of prints by Goya, also from Lord Houghton's collection, which were received by HM Government from the Duchess of Roxburghe's

estate under the Acceptance in Lieu scheme. As well as being displayed in the Wren, these volumes have been digitised and are freely available on our website. The College continues to be greatly indebted to Mr Nicholas Kessler (1955), whose gifts over the last few years have formed one of the finest collections of *livres d'artistes* in the country: in recent months two major additions have been *Le Corbeau* – Mallarmé's famous translation of Poe's *The Raven* with illustrations by Manet, published in 1875 – and a magnificent edition of Hesiod's *Theogony* with etchings by Braque. Other major acquisitions have included the papers of Sir Anthony Epstein (1939) and 53 hitherto unknown letters from A. E. Housman to his godson Gerald Jackson.

Meanwhile the Library continues to acquire all the books required for undergraduate study, and is reviewing the facilities provided in the College Library. There have been a dozen special exhibitions in connection with conferences or other visits, and the number of tourist visitors continues to grow, with more than 25,000 last year. The programme of digitisation has expanded considerably, with more than 500 medieval manuscripts now freely available on the Wren Digital Library and plans to develop the programme for other parts of the collection with the financial support of alumni.

Staff Changes 2015–2016

Georgina Salmon, Head of Human Resources



Changes at senior staff level

Miss Fiona Holland was appointed to the newly-created post of College Communications Officer in September 2015.

Due to the retirement of Mr George Townsend on 31 December 2015 after more than 19 years' service Mr Duncan Malthouse-Hobbs was appointed to the post of Head of IT in early November 2015.

Miss Jennifer Garner, Director of Alumni Relations and Development, left her post on 31 May 2016 to return to work in America.

Mrs Lucia Bramwell, retired from the position of College Housekeeper on 31 July 2016 after more than 13 years' service. She has been replaced by Ms Joanna Hayward, who joined the College on 12 September 2016.

Retirements of long-serving staff

The following long-serving members of staff have retired this year: Mrs Hansa Chauhan, Fellows' Secretary, after 17 years' service; Mr Ian Desborough, Porter, with 13 years' service; Mr Ian Marks, Porter, with more than 11 years' service; Mr Norman Boyden, Catering Assistant, with more than 26 years' service; and Mrs Rosemary Jolley, Tutorial Secretary, with over 20 years' service.

Members of the Housekeeping Department, all Bedmakers, who have retired in the last year include: Mrs Lorelda Ketchin (10 years); Mrs Emma Antivil (21 years); Mrs Patricia Foreman (16 years); and Mrs Carol Nurse (16 years).

Two retirements of note relate to members of staff with particularly long periods of service: Mr David Phillips, Senior Porter, after 37 years' service; and Mrs Maria Liston, with over 34 years' of service in the Catering Department, the last nine years as Manciple.

Deaths

Mrs Madelaine Crush, employed as a Tutorial Secretary, sadly passed away in July 2015 following an illness.

It is with regret that the College learned of the deaths of a number of pensioners during the year: Mr William Nunn (Works) at age 101 and who retired in 1979; Mr Robert Pratt (Works); Mr Kenneth Driver (Works); Mr Walter Butlers (Porters' Lodge), and Mr Richard Aldred (Catering).

Retirement of the Manciple

Stephen Elliott (1977) Steward

Mrs Maria Liston retired as the College's Manciple on June 30th, 2016, having been appointed as the first female holder of this post in 2008, and having worked for the College for a total of 35 years. Originally from North-West Spain, Mrs Liston came to the UK in 1972 and started working at Trinity in September 1981, first as a casual waitress, then becoming, in turn, a full-time waitress and Functions Supervisor before succeeding Mr. Bob Day as Manciple when he retired after 20 years' service for the College. She has served under six Masters during her time at Trinity, viz. Sir Alan Hodgkin, Sir Andrew Huxley, Sir Michael Atiyah, Amartya Sen, Lord Rees of Ludlow and the current Master, Sir Gregory Winter. But this is also a family affair: each of her three daughters has also worked for the College at some time.

The term 'Manciple' is rather arcane. It derives from the Latin word '*Manceps*', meaning a purchaser. In medieval England, it was used to describe a person who was a steward or purchaser of provisions, as for a monastery or College. In English



Mrs Maria Liston at the head of the steps outside the College Hall: image © Graham CopeKoga.

literature, the Manciple is one of the pilgrims making a journey to Canterbury who tells the penultimate tale (instead of the Cook, who is too drunk) in Geoffrey Chaucer's *Canterbury Tales*. In fact, Mrs Liston maintained this medieval link, personally buying fruit for the Fellows' High Table each week from the Cambridge market. However, the job entailed much wider responsibilities; the Manciple nowadays is the Fellows' Butler, in charge of the Catering Department staff associated with the Fellows' Parlour, where coffee is served and newspapers read, and of the High Table and the Combination Room where meals, and Port and dessert after dinner, respectively, are served. The Manciple is also in charge of service at the several Feasts and Annual Gatherings held by the College each year.

Mrs Liston's advice to her successor as Manciple, Mr. Mark Samson, was: "be discreet, be seen and not heard". Rather similar to the final advice given by her namesake at the end of the Manciple's Tale in the *Canterbury Tales*: "Wherever you are, among the high or low, Guard your tongue, and think about the crow".

[See also: <http://www.trin.cam.ac.uk/news/trinitys-manciple-retires>]



THE REGISTER

IN MEMORIAM

ADDRESSES WANTED





The Register

In Memoriam

- 1931** Mr W P Chope, 14 May 2007
- 1938** The Lord Dormer, 10 April 2016
Mr R S King
- 1940** The Revd K R J Cripps
Mr A C D Haley
Mr R P Lister CBE, 19 March 2016
Professor B G Neal, 20 March 2016
- 1941** Professor S F C Milsom, 24 February 2016
Mr D J N Porter
Mr R G Williams OBE, 14 January 2016
- 1942** Mr J Hicks, 10 February 2016
Mr H C N Lister, 19 May 2016
Mr M J R Healy, August 2016 *
Mr E H Norris, 12 November 2015
Mr A F Warburton, 26 April 2016
Mr E J Watson, 9 December 2015
- 1943** Mr R A R Dewar, 6 June 2010
Mr R Dickson, 9 June 2016
- 1944** Mr E A Boddington JP DL, 3 December 2015
Mr P H Molony, 9 June 2015
Mr J E Monson, 11 December 2015
- 1945** Mr M E Ash, 30 April 2016
Mr P E T Davies, 8 September 2015
- 1946** Dr G H N Chamberlain
Mr C J Kennington CEng
Mr C M Woods, 10 January 2016 *
- 1947** Mr G Allanson, April 2015
Dr J Anderson, 15 November 2015
Mr P Parker, 2015

- Mr R H Pelly, 24 January 2016
Sir Peter Shaffer, 6 June 2016 *
Mr B D Threlfall, 3 June 2016
- 1948** Mr G R Bryant, 29 September 2015
Sir John Cassels CB, 27 February 2016
Mr N C B Creek, 17 September 2015
Mr T Pevsner
Mr J D Woodthorpe, 8 February 2016
- 1949** Mr T H J de Lotbiniere, 2015
Dr D J Lake
Sir George Pollock, May 2016
Dr P C Price, 11 June 2013
Mr B F Rees, 16 February 2016 *
Professor R Shaw ScD, 21 June 2016 *
- 1950** Mr H G Davies, 31 December 2015
Sir Ian Johnson-Ferguson Bt, 6 December 2015
- 1951** The Lord Luke, 2 October 2015
Mr M G D O'Donovan, 15 January 2016
Dr F A E Pirani, 31 December 2015 *
Professor W H Reid, 31 January 2016
Dr J M Rollett, 31 October 2015
Mr I G S Stocker, March 2016
Sir Alan Waterworth KCVO, 18 February 2016
- 1952** Mr J Janson, 29 November 2015
Dr T P Owen, 1 June 2015
Mr E W Radoslovich, 4 August 2016
Professor P Spencer, 21 July 2015
- 1953** Mr P H G Clarke
Mr A F B Crawshaw, 27 August 2016
Mr C H Lezard
Mr C N Linden, 13 March 2013
Mr A A M Mays-Smith, 21 May 2015
Mr R F H Park, 8 April 2016
Mr D R F Roseveare, 13 June 2016
- 1954** Mr S W Blunt, 29 November 2015
Mr J P G Goldfinger
Mr B M Ivory, 11 April 2016
Mr R M Lees, 6 August 2015
Dr J D Roberts, 21 March 2016
Mr S K Swarup, 20 August 2016

- Professor J P Watson, 4 August 2016 *
 Dr R J Watts-Tobin, 26 April 2016
- 1955** Mr C J B Green, 24 November 2015
 Mr J L Wood, 15 March 2016
- 1956** Mr R M Sherriff CBE DL, 22 July 2016
 Mr J E Upton, 5 June 2016
- 1957** Professor M P D Baker-Smith, 26 August 2016
 Mr H W R Davies, 20 March 2016
 Professor J C Elliott
 Mr R S McFarlane, 15 June 2016
 Professor J S C Riley-Smith, 13 September 2016 *
- 1958** Mr J Faulkner, 17 April 2016
 Mr J D Michaelis, 22 December 2015
- 1959** Mr B O H Griffiths TD, 25 March 2016
- 1960** Dr B J Ridgewell, 29 March 2016
- 1961** Mr G A Allsop, 2016
 Mr H R G Powell-Shedden, 9 September 2015
 Mr S Williams, 24 December 2015
- 1963** Mr P J Mischo, 10 May 2016
- 1964** The Revd Professor D E Nineham, 9 May 2016 *
- 1965** Mr S H Ward-Jackson
- 1967** Mr P G R Bingham
 Mr A D Poole, 2 December 2015
- 1969** Professor J R Blake, 5 June 2016
- 1970** Professor L A Balzer, 2016
- 1971** Professor L C Chan, 15 November 2015
- 1972** Mr D H Culverwell, 21 October 2015
 Mr A M Press, 26 May 2016
- 1973** Mr P B Eastham, 23 July 2016
- 1975** Dr J C Ellis, 21 December 2015
 Professor M N Morris
- 1976** Mr J P Geelan, 12 April 2016
- 1977** Professor P E Chabal, January 2014
- 1979** Dr R C Furlong, 19 April 2013
- 1995** Mr P L McGoay, July 2015
- 1997** Mr R E Hicks, 29 October 2015
- 2004** Miss L E Hayward, November 2015
- 2014** Mr O Binns, 25 February 2016
 Mr C Calin, 17 December 2015
 Professor K Jeffery (e), 12 February 2016

Obituaries on the College Website

We have posted a number of obituary notices for members of the College, taken from the national press and elsewhere, on the College website www.trin.cam.ac.uk/alumni/information/members-obituaries/. These are denoted by an asterisk in the above list. Members of the College are warmly invited to contribute appreciations or other reminiscences of recently deceased Trinity men and women for publication on the website. These will be especially welcome in the case of anyone who has not been the subject of an obituary notice in the national press. Contributions, of not more than about 500 words, may be submitted either by e-mail to alumni@trin.cam.ac.uk or by post to The Editor, Annual Record, Alumni Relations & Development Office, Trinity College, Cambridge CB2 1TQ.

Addresses Wanted

I am grateful to all who have made it possible to remove several names during the past year and would welcome any help in shortening the list further. Please write either by letter to the Alumni Relations & Development Office, Trinity College, Cambridge, CB2 1TQ or by e-mail to alumni@trin.cam.uk. Thank you, David Washbrook (Editor).

1950

Maruchehr Agah
Colin Campbell Boone
Jean-Pierre Henri Cordier
Patrick Anthony Cullum
Colin Green
John Anthony Guymer
Jeffrey John Key
Arthur Roger McKenzie
John McKinnell
Roop Chand Sahni
Charles Henry Taylor
Roger Waplington
John MacDonald Wilkie
William Williams

1951

Alan Crossley Butler
Donald Hugh Fraser
Edwin Leonard Paul Hammond
Colin Stanley Hocking
John Mundell Hyndman
Hugh Innocent
Nawab Bashir Yar Jung
David Keith Kerr
John Tompo Mpaayei
William Evan Rennie
Julian Rivers-Kirby
Hugo Wallace

1952

Alfred Henry Robert Abbott
Robin Irving Barraclough
Martin Clutton-Brock
Ernset Edward Cox
John Robert Blyth Currie
Michael Joseph Gahan
Germano Giuseppe Frascara Gazzoni

John Crossley Griffith
Mustapha Jamil Hariri
Alan William Harkness
Peter Allan Hayward
Stefan Kruger
Leslie Gwyn Lawrence
Bartolome Jordana Oliver
Shyan Chandra Prasad
Jacob Joshua Ross
Peter Leonard John Ryall
John Hartley Webster
David Michael Hessom Williams

1953

Jolyon Roger Booth
John Michael Bremner
John Joseph Stanley Davidson
Latimer Walter Stephen Giggins
Gordon Mackenzie Greig
Tudor Wyatt Johnston
Marek John Laubitz
Mark Lucas
John Sherwood Mather
George Michael Sanford Monkland
David Simeon Nahum Morrison
Hisahiko Okazaki
John David Pitt
Dennis Michael Reader
John Skoulas
Robert George Walker

1954

John Baker
George Gavin Betts
Ian Paul Dyson
Derek Alan Foster
Peter Arthur Nedham Foster
Robert Joseph Gandur

Scott Munnoch Gibson
 Coenraad Jan Eduard Joosten Hattink
 David Brian Jones
 Trevor William Marshall
 Dennis Homer Clare McFarlane
 Thomas Arthur Middleton
 Andrezej Tadeusz Milewski
 Philip Stuart Phillips
 Robert James Platt
 Frederick Michael Purchase
 Robin Quentin Ramm
 Raymond James Rivett Simpson
 John Barkley Sproul
 Kandiah Tharmalingam
 George Criton Tornaritis
 Paul Richard Jarvis Vickers
 William Lloyd Warner
 Robert Arthur Wellings
 John Rawcliffe Wilson

1955

Talib Tawfik Al-Nakib
 Martin Seymour Ashley
 Michael Patrick Denis Barrett
 Frank Godfrey Barton
 John Graham Bennett
 Diarmid Alexander Campbell
 Alexander Douglas Carmichael
 Michael Anthony Doughty
 Herman Anthony Bernard Eckstein
 Robert John Elliott
 Brian Winston Godley
 Richard Michael Holmes
 John Francis Keogh
 Hassan Kuwatly
 Edwy Kyle
 Neil Kirk MacLennan
 George Thornycroft Vernon
 John Edmund Elliot Whittaker

1956

Marshall Olatunde Akinrele
 Michael Branthwayt Beevor
 Ellison Stanley Burton
 John Hutton Coates
 Nicholas Michael Norman Cohen
 Anthony John Dymock
 Ronald Walter Garson

Nahum Joel
 Alagesvaran Chelvanayakam Manoharan
 Charles Shadwell Mayo
 Michael Neville McMorris
 Raymond Ajit Pillai
 Philip Langley Rose
 Antonio Jose Sanchez-Pedreno-Martinez
 Michael John Selwyn
 Michael Alexander Shields
 Andrew Bonawentura Smiela
 Anthony Roy Summers
 Jeremy Joyner White
 James Stephen Walker Whitley
 Walter Murray Wonham
 Donald Adam Young

1957

Muthar Tewfik Al-Nakib
 Gabriel Peter Rudolph Carpanini
 Geoffrey Clarke
 David Ernest Howe
 Sydney Arthur Josephs
 David Lister
 Anantanarayana Madhavan
 Nicholas Henry Pott
 John Lionel Anthony Pretlove
 Charles James Lyle Rathbone
 David Victor Roditi
 Richard Francis Southall
 Charles Bliss Stephens
 Solly Tucker
 Denis Michael Walley
 Guy Richard Walmsley
 John King Whitaker
 James Frederick Truman Ogle Wiltshire

1958

Thomas David Barber
 Norman James Barter
 David Mark Calderbank
 Muhammed Shamsul Hague Chishty
 Henry Neil Cotton
 John Gordon Cragg
 Christopher George Dowman
 Peter John Flemons
 John Selwyn Fry
 Robert Hardman
 Jeremy Hayward

Anthony Jeffery
 Carlyle Ethelbert Moore
 David Long Price
 Michael George Price
 John Francis Rhodes
 Zahid Said
 Colin Michael Sargent
 Andrew Jamieson Strathern
 Harry Noel Odarquaye Sunkwa-Mills
 Roger Martin White
 Colin Fraser Scott Wilson
 Paul Conrad Wright

1959

Arun Narhar Abhyankar
 Anthony Hazlerigg Proctor Beauchamp
 Charles Hugh Clarke
 James Lindsey Cook
 Peter Henry Dale
 Martyn Adrian Freeth
 Eric Infeld
 Art-org Jumsai
 Michael Royds Mather
 Earl Ingram McQueen
 Peter Mercer
 Alan Hugh Page
 Ronald Frederick William Smith
 David William Stebbings
 William James Thompson
 Michael John Westwater
 Nigel Glynne Whitaker
 John Miles Wilson

1960

Peter Anthony
 Joseph Anant Aribarg
 Anthony Christopher Baxter
 Bruce Alan Beharrell
 Edward John Blomfield
 Paul Martin Lavie Butler
 Moises Derechin
 David Anthony English
 John Derek Michael Freeberne
 Brian Ronald Gaines
 Allan Buchanan Gardner
 Peter David Goodstein
 Robin Goodyear

Frederick Mogaji Henry
 Amon Horne
 William George Josebury
 Philip Morris Kestelman
 John David Lickley
 Michael May
 Hugo Anthony Meynell
 Jonathan Derek Morley
 William Richard O'Beirne
 Trevor John Poskitt
 Antony John Priddy
 John Barnett Radner
 Christopher Andrew Beaumont Sanders
 David Howard Smith
 Martin David Stern
 Robert James Wakeley
 Henry Douglas Michael Wilkin
 Kenneth Graham Woollard

1961

Stuart Lee Adelman
 Mark Gordon Anderson
 Colin John Barnes
 Mohammed Nor Bujang
 Andrew Richard Castle
 Donald Jay Cohen
 Lionel Frederick Havelock Collins
 Darrell Desbrow
 David Eady
 Christopher John Edwards
 Roger Martin Floyd
 Francesco Gallo
 Stephen Miles Gersten
 Brian James Gooseman
 Thomas Griffith
 Bevan James Hewett
 Dennis James Hodges
 Peter Jackson
 Valimohmed Jamal
 David Southam James
 Joseph Alfonse Bertrand Lacombe
 Irvine David Marcus
 Eliahu Margalioth
 Jorgen Frederik Moen
 David Allister Moores
 Brian John Nicholson
 Jonathan Daniel Pearse

John Frank Townsend Pittman
Niels Stuart Polden
Christopher Roger Purton
Barry Lester Roberts
Luigi Rossi
David Andrew Russell
Owen Glyn David Saunders
Julian Portway Scott
Michael Arthur Ronald Smart
Brian Charles John Smith
Henry Raymond Smith
Leonard Todd
Robert Farquhar Wing

1962

Hugh Thomas Ashby
Herve Aslan
Anthony Richard Astill
John Edward Baker
Anthony Wyndham Bamber
Robert Bebbington
Henry William Warwick Clive St George
Bowers-Broadbent
Anthony Charles Bowker
John Digby Bristow
Sebastiano Brusco
Timothy Francis Cripps
Anthony Constantine Dendrinios
Peter John Didcott
James Elmer Feir
Ian Garrett
Christopher Ceri Alers Hankey
Richard Leslie Harcourt
Christopher John Harris
John Hibbert
Colin Robert Horstmann
Robin David Brett Johnson
Charles Michael Morgan
John Richard Piggott
Michael Henry Seymour
Peter John Smith
Katsunari Suzuki
Howard Frank Taylor
Charles Gomer Thomas
Roger Vincent
Robin William Whitby
Dayendra Sena Wijewardane

1963

Norman Robert Arnell
John David Lincoln Ball
Giuseppe Bertini
Romesh Chopra
Donald Hugh Clark
Ian Martin Clifton-Everest
Alan Brian McConnell Duff
John Lawrence Walker Ellis
Saad Faisal
Mark Nigel Thomas Vaughan Fisher
Stephen Charles Gaunt
Andrew John Grant
Nicholas Simon Hall-Taylor
Zafar Iqbal
Alan Michael Jackson
Gerard Heath Lander
Philip Murray Jourdan McNair
Laurence Middleweek
John Mills Noble
Paul Francis O'Donnell
Donald MacKintosh Philp
Homer Edward Price
Leslie John Rowe
James Hermon Scharenguivel
Alistair David Stewart
David Toganivalu
Kenneth Kitson Walters
Christopher Colin Wilkins

1964

Andrew Vincent Carden Armstrong
Hussein Hadi Awad
Russell Bruce Clifford Beeson
David Ronald Bird
Shick Chin Chan
Oon Siew Cheah
Anish Chopra
Robert Graham Cooks
John Richard Davies
John Michael Evans
Robert Charles Forster
Bernard Gainer
Peter Mark Hobart
Francis Peter Blair Holroyd
Martin Stephen Housden
Mark Clifford Howell

Barry Hunt
 Michael Arthur Hutt
 Peter Johnson
 Yutaka Kawashima
 Douglas Sydney Koszerek
 Peter Kennedy Machamer
 Thomas Christopher McCarthy
 Robert James McEliece
 Michael Acton Fyans Neill
 Steven Christopher Perryman
 Francis Martin Prideaux
 David John Sparks
 Graham Edward Stapleton
 Ian Christopher Stirk
 Nikhil Nityanand Wagle
 Rodney Geoffrey Williamson

1965

Mohamed Ariffin Bin Aton
 Stephen John Brandon
 Peter Richard Carr
 Afandi Belvenu Chidolue
 Meng Kng Chng
 Robert Anthony Cook
 Thomas Crawford
 Richard Vaughan Davies
 Peter Nigel Watts Farmer
 Peter John Fellner
 Robert Allan Giffords
 Christopher Julian Impey
 Julian Richard Irwin
 Andrew Kenneth Astbury Jackson
 Lal Narinesingh
 Michele Perrella
 David Christopher Pynn
 Howard Robert David Richter
 Philip James Roberts
 Philip Anthony Francis Scoones
 Brian Arthur Sewell
 Michael Hilton Smith
 Stuart Neil Smith
 Alan Michael Tartarkoff
 Alexis Teissier
 Christopher Edward Thompson
 Patrick Jocelyn Tickell
 Eric Herbert Towner
 Michael Guy Wellman
 Christopher James Wilde

Ederyn Williams
 Robert John Williams
 Robert John Wolverson

1966

Nigel Frederick Barley
 Adrian Edward Doff
 Peter Benjamin Ellis
 William Brian Finnigan
 Ian Michael Forster
 Michael Barry Gurstein
 Ian Hamlett
 Ralph Patrick Hancock
 Inman Rhys Harvey
 Alan David Hayling
 James William Edward Henderson
 John Alexander Hewitt
 Abdulkadir Muhammad Sambo Imam
 Jorgen Skafta Jensen
 Bryant Thomas Steers Johnson
 Trevor Glyn Jones
 Kamal Nayan Kabra
 Francisco Kerdel-Vegas
 Simon John Lowy
 Lawrence Lynch McReynolds
 Ajay Kumar Mitra
 Michael Joseph Murphy
 Gunnulf Myrbo
 Douglas McLachlan Neil
 Pierre-Yves Petillon
 Roger Davidson Routledge
 Sulaiman Salim
 Punnavanno Sathienpong
 Trevor Stanley Schultz
 William Henry Selwyn
 James Christopher Sinclair
 Peter Smedley
 Nigel Graham Francis Stafford-Clark
 William Maurice Corney Townley
 David John Wilkinson
 Roderick Tom Worley

1967

Adrian Alton Abel
 David John Boadle
 Mark Leonard Caldwell
 Anthony Ivo Harvey Clark
 Alexander James Cowie

John David Gecaga
Isaiah Goldfeld
James Greenfield
Norman Lawrence Hamilton
Daniel Stewart Harris
Stephen Harrison
Timothy George Hodgkinson
Alexander David Kalisch
Brian Maddock
Stephen Marker
William Lorn Mason
Michael Joseph Mzumara
Philip Charles Norbury
Keiran O'Brien
Lennard Henry Okola
Rajat Kanta Ray
John William Low Richardson
Daniel John Roberts
Charles Stuart Nugent Rooney
Paul Jonathan Scruton
Stuart Victor Showell
Nicholas Harold Simmonds
Graham Carvell Sims
Ian Stewart Smith
Maciej Maria Szczytowski
John Anthony Thornley
Christopher Charles Vine

1968

Tristram Paul Besterman
John Christopher Blundell
Patrick John Northcroft Brown
Sergio Carvazho De Andrade
Anthony Sumner Dixon
Alan Edwards
Martin Paul Ellis
Michael Sheridan Gregory
Paul Nicholas Gulliver
John Stanley Keniry
Mohammed Noorul Quader Khan
Anthony Robin Leighton
Stephen Arthur Manico
Guido Montani
Robert Michael Neumann
John James Bayntun Parker
Paul Malachy Quinn-Judge
Marc Shell
Joel Michael Shupac

Stephen Hayward Sinclair
Amitava Tripathi
Michael Frazer Watts Farmer
Laurence Lothian Wilson

1969

Frank Samson Archibald
Michael Mihran Avedesian
Christopher John Birchall
Richard John Bradshaw
Owen William Davies
Geoffrey Peter Finch Field
Clive Michael Gordon
Michael John Hunter
David Louis Isherwood
Takeshi Kagami
Robert Esra Kaim
Nicholas Peter Kavanagh
Philip Herbert Kenny
Robert Ian Lamb
Murray Neil Mitchison
Angus Gordon Nicoll
Hugh Ryder Phillips
John Richmond
Nicholas Angus John Sheppard
Paul Boulton Smith
John David Starling
Reuben Rowley Swann
Anthony John Walton
Andrews Waters
James Renner Watts
Paul Willerton
Joseph Charles Willing
Derrick William Michel Worsdale

1970

Christopher Ian Bale
Gordon Irvine Bennett
David Anthony Bond
Francis William Chavasse Burdett
John William Clarke
Andrew Gerhard Crawford
Geoffrey Davis
John Leslie Davis
Terence Anthony Dillon
Peter John Dutton
John Michael Gornall
Joseph Colum Hayward

Simon Michael Jack
 Marcus Lorne Jewett
 Stephen Nigel Jones
 Timothy William Lamerton
 Robin Love
 Richard Jonathan Mond
 Christopher Raymond Onions
 John Francis O'Reilly
 John Nicholas Adams Reckert
 Peter John Rowley
 Faisal Saied
 Oliver Hugh Stanley
 Subramanian Sundaresan

1971

Vincent Melville Anthony Adams
 Christopher Richard Barclay
 David George Barker
 William David Beastall
 George Michael Bichard
 Roger Thomas Bogg
 Ralf Christopher Buckley
 Kenneth George Butcher
 David Keith Cadwallader
 Stephen John Charlton
 John Andrew Curry
 Richard Windsor Daniel
 Vidya Sagar Dwivedi
 Sherif Mahfouz Makram Ebeid
 David Richard Ennals
 Martin Charles Fieldhouse
 David Patrick Brian Fitzpatrick
 Alexander Edward John Fraser
 Paul Geoffrey Freestone
 Neil Duncan Hargreaves
 Thomas David Helsby
 Charles Vaughan Hyde
 Philip George Jackson
 Paul Jefferson
 Graham Murray Jones
 David Kershaw
 Andrew Lee
 Alexander Philip Charles Leon
 Richard Andrew Litherland
 Eduardo Enrique Mayobre
 Christopher Wah Chiu Mok
 Jeremy Robert O'Grady

Ioan Pircea
 David Plowman
 Philip Angus Potterton
 Peter William Hamlet Redman
 William David Riceman
 Daniel Philip Rose
 Peter Alexander Geza Scott
 Paul William Seviour
 John Stephen Snowdon
 Mario Ugo Tonveronachi
 Michael Patrick Treanor
 Vernon Gregory Wilkins
 Alexander William Wood
 Neville Eric Wright
 Philip Kevin Wright

1972

John Martin Ackerman
 John Ernest Adams
 Kiyotaka Akasaka
 Michael Gerald Bier
 Laurence Mark Boatfield
 Martin Joseph Booth
 Andrew Chard
 Po Sheun Chung
 Ian Croxford
 Jonathan Michael Edwards
 Martin Andrew Green
 Nicholas George Hall
 Mark Philip Hartman
 Christopher Victor Haywood
 Stephen Malory Hobbs
 Christopher Hopper
 Thomas Morton Jaffray
 Neil Elliot Johnstone
 Peter Miles Lawrence
 Neil Philip Marchant
 Alfred George Merriweather
 Iain Michael Morison
 Robert Arthur Nind
 Ashwani Saith
 Arie Schechter
 Ivo Slavnic
 Richard James Bjorkling Taylor
 Stephen Charles Tourek
 Christopher David Townsend
 Graeme Derrol Walker

Timothy Gibbard Webb Ware
Richard Lynton White
Vivian John Charles Willson

1973

Roland Kenneth Ball
Stephen Richard Bayliss
Abel Ramon Alvarez Caballero
Paul Anthony Carthew Collard
James Kinder Davenport
Robert Spencer Davis
Jeremy Nicholas Marsden Drake
James Gerard Dunne
David Paltiel Handlin
David Anthony Roger Harrison
Mushirul Hasan
Raymond Albert Hoong Fai Hui
Robert Alexander Laing
Simon James Henry Long
Paul Matthew McKeigue
Anthony Robert Moore
Geogres Alphonse Jean Laurence Nairac
Kehinde Basola Olukolu
Leslie Peter Pitcher
Richard Fletcher Reading
Anthony Lewis Smith
Nigel Charles Tansley Thomas
Adrian Anthony Micheal Thomas
Christopher Peter Whymark

1974

Timothy Robin Cornelius Alexander
Charles Patrick Edward Barran
Richard John Blackmore
Luis Manuel Campos
Mark Knightley Chetwood
William Anthony Clement
Julian Czura
Julian Witold Doberski
Stephen John Harvard Evans
Agustin Font Blazquez
Lionel St Clair Goddard
Patrick Houyoux
Donald Joseph Lange
Rene Frederick Jonathan Lloyd
Thomas Gray Maxwell
Shahkar Mossaheb

Christopher John Nutt
Trevor George Pinker
Paul Harper Robinson
Richard Trevor Rowell
David Gordon Wickham

1975

Michael Bennett
Adrian Merlin Daniels
Mark Shaun Eaves
Barrie Edwards
Leslie Thomas Gregory
Manas Kumar Haldar
Russ Hopkins
Richard David Hartnoll Hopkinson
William Kingsley Jenkins
Frank Sicinga Khumalo
Mark Stefan Mitchell
Kevan Moran
Philip Simon Murray Murray-Pearce
Ian Malcolm Musson
Simon Michael-John Pelling
Alexander Stephen Rae
Emmanuel Rayner
Hugh Frederick Richardson
Timothy Lang Root
Keith Tanner
Wagner Ernesto Ulloa-Ferrer
Jens Burkhard Vetter
Stefano Vona
Colin Walsh

1976

Ahmed Abdalla Ahmed
Walid Yasin Al Tikriti
John Graham Byron
Thomas James Woodchurch Clarke
John Douglas Colvin
Colin Edwards
Michael Ambrose Evans-Pritchard
Andrew John Facey
Lawrence Goldman
Peter George Gow
Simon James Hamilton
Keith Miles Harris
Stephen Charles Lovatt
Marshall Graham Marcus

Alan Robert Meekison
 Paul John Moseley
 Peter Murray
 George Ellis Myerson
 Michael John Eric Palmer
 Larissa Queen
 Philip Rostron
 Stephen Joseph Sadler
 Carl Robert Emden Schwartz
 Anand Shivaram
 Michael John Smith
 Norman Frank Stevens
 Paul David Tarby
 Brian Victor Thompson
 David Peter Tighe
 James Donald Wakefield
 Charles Alexander Whyte
 Simon David Wood

1977

Bernard Arambepola
 Adam Ashford
 Mark Steven Bassett
 Tilak Tissa Chandratilleke
 Christopher Cooper
 John Dowell Davies
 Clive Peter Dean
 Stephen Dennison
 Brinder-Paal Jai Singh Deo
 Paul William Durrant
 Christopher Peters Garten
 Richard Kennedy Guelff
 Francis Adrian Johnston
 Ismet Kamal
 Kenneth Konrad
 Ginette Marie Gabrielle Simonne Lessard
 Alexandra Mary Livingstone
 Marcella Maura Madden Austad
 (Madden)
 Dominic Perkins
 Conrad Mark Preen
 David John Rigby
 Jaime Bosch Ros
 Colin Finlay Barratt Sanderson
 Stephen Robert Sayers
 Mark Steven Todhunter
 Mark Hudson Wheatley

1978

Rene-Christophe Aquarone
 Lionel Charles Barnett
 Peter Brown
 Geoffrey Nigel Cook-Martin
 James Daniel
 Christopher George Edgar
 Roger Jeffrey Hanson
 Jeanette Hau (Morley)
 Willson Hau
 Caroline Margaret Hitch
 Stephen Peter Hoadley
 Robert Michael Ilott
 Martine Sophia Ingenhousz
 Justin Drury Kenrick
 Richard Douglas Knight
 Manmohan Singh Kumar
 Kam Leung Lee
 Peter James McBreen
 Linda Lenock Moy
 Richard James Neville
 Robert Angus Paul
 David John Benjamin Pearce
 Sophie Mary Suzanne Pevtschin
 Alan Douglas Rodgers
 Christopher James Salt
 Paul Gareth Giuseppe Smith
 Peter Picton Taylor
 James Robert Telfer

1979

William Edward Adams
 David Thomas Barfoot
 Mark Giffard Blamire
 Alexander Christopher Watson Bullock
 Philip John Emmott
 Dario Marcello Frigo
 Andrew John Ernest Gough
 Stephen Paul Grantham
 George Christopher Grey
 Rudolph Willem Holzhauser
 Roger Benedict Hyams
 Caroline Rachael Inson
 Mark David Johnson
 Fiona Jane Key
 Cornelius Jan Kros
 Peggy Elizabeth Laidler

Elizabeth Anne Leff
 Gerald Paul McAlinn
 Carol Elizabeth Moffat
 Octavius John Morris
 George Jiri Musil
 John Lindsay Needham
 Richard David John Oglethorpe
 Juliet Clare Elaine Peston
 Alan David Pickering
 Stephen Charles Pole
 Caroline Emma Jane Richards
 Lawrence Stephen Rodkin
 Estela Ruiz de Zander

1980

Sonja Antoinette Abbott
 Geoffrey Karl Aldis
 John Christian Murray Baveystock
 Adam George Beck
 Mary Sydney Briley
 David Ewan Brown
 Antonius Wilhelmus Maria Dekker
 Philip William Freedman
 Daisy Georgia Traille Goodwin
 John Andrew Gunter
 Jane Patricia Hammond Foster
 Philip James Hurley
 George Karamanzanis
 Nicholas Murray
 Alexis Papaioannou
 John Gustav Polenski
 Lynn Roberta Rendell
 Julian Leonard Ryall
 Simon Collis Ryan
 Andrew Shelley
 Eion Turnbull
 Christopher John Williams
 Edward James Corritt Williams
 Gareth Haydn Williams
 Wai Kwong Yeung

1981

Fereidoun Abbassian
 Nicholas Ekow Austin
 Steven Peter Beller
 Julian David Borrill
 Michael Kim Brooks

Geoffrey Duncan Brown
 Richard William Davies
 Ewan Murray Edington
 Peter John Elliott
 Helen Frances Elizabeth Fineron (Barry)
 Richard Francis Greaves
 Thomas Christopher Harris
 Kathryn Fiona Henderson
 Jeremy Clifford Henty
 Richard Paul Hooper
 John Claiborne Isbell
 Stephen Eric Jourdan
 Joachim Kaemper
 Moira Lesley Kyle (Crawford)
 Alison Amanda Layland (Howett)
 Nigel James Leask
 Daniel Julio Lew
 Paul St John Mackintosh
 Robin Murray
 Monica Olvera De La Cruz (Olvera)
 Allen James Powley
 Toby Poynder
 Oliver Karl Sedlacek
 Kevin John Sene
 Giles Anthony Smith
 William Ralph Steadman
 David Cecil Staples Turchi
 Henry Vaughan
 John Eric Jarvis Vickers
 Philip James Whitaker

1982

Dean Thomas Allemang
 Kamalkishor Madanlal Bajoria
 Robert George Carlisle
 Young Young Chan
 Robert Paul Wallace Collins
 Neil Martin Crowther
 Roger Dearnaley
 Harriet Anne Dickson
 David Michael Dowell
 David Nicholas Edwards
 William James Gerrard
 Michelle Gothard
 Robert Bryan Hales
 Averil Jessica Hanslip
 Timothy Andrew Heap

Christian Hemsing
 Brian Douglas Mckae Jones
 Peter Paul Anatol Lieven
 Xiao Liu
 Harvey Alexander Mace
 Angus Hamish Mackie
 James McKernan
 Charles Lloyd Meredith
 Pearson Nherere
 Jane Margaret Powell
 James Gary Propp
 Penelope Rashbass
 Hartmut Richter
 Carlos Javier Ricoy
 Jonathan Henry Scott
 Eric Lepage Taillefer
 Konstantinos Valakas
 Hugh Francis Walters
 Andrew Neil Watson
 Graham Frank Watson
 Michelle Claire Webb
 Andreas Weigend
 Edward Welbourne
 Ming Xie

1983

Oliver Bakewell
 Guy David Barry
 Rory Bryan Duncan Chisholm
 Charles Richard Graham Cohen
 Adrian Russell Cooper
 Anna Elizabeth Cross
 Giles Benjamin Hall Dexter
 John Michael Mark Francis
 Robert Murray Gillett
 Jonathan Derek Hill
 Paul Couves Hitchman
 Roger John Wallace Inman
 Nigel Robert Jacobs
 Stephen Meredydd Jenkins
 Amir Houshang Khoshnam Moghadam
 Yogesh Kumar
 Joel David Lane
 Alan James Laughlin
 John Justin MacLachlan
 David Wayne Mead
 Lawrence Merrett
 David Keith Miell

Veronica Noemi Ortenberg
 Ioannis Efstathios Papadakis
 Normand Paquin
 Pavlos Iaconou Pavlides
 Danielle Susan Peat
 Mary Emma Smith
 Mark Richard Alexander Stern
 John Owen Hardwick Stone
 Katherine Lee Walker (Goodson)
 Nicholas Thomas Clinton Wells
 Simon John Peter Worrall
 Jessica Wood Yakeley

1984

Matthew Geoffrey Baring
 Danlami Basharu
 Alexander William James Bell
 Felix Nathaniel William Bellaby
 Rudiger Benterbusch
 Mark Andrew Brumby
 David John Fell
 Stuart John Hall
 Jane Elizabeth Hill (Pass)
 Michael Anthony Hue-Williams
 Christopher Mark Johnson
 Sanmugarasa Kamalarasa
 Benjamin Rolf Keeping
 Manoel Jose Machado soares Lemos
 Neil Harry David Macklin
 Panayotis Mavromatis
 Gregory James McMullan
 Jonathan Paul Murphy
 Sarah Jane Reid Murray
 Rassamunira Ramli
 Robin Stuart Saunders
 David Seetapun
 John Anthony Skedd
 Jean Pierre Snijders
 Richard Huw Thomas
 Paul Charles Clayton Tolman
 Andronicus Voliotis
 Wensong Weng
 Stuart James Woodard
 Gyorgy Zolnai

1985

Wasim Ahmad
 Michael John Bradbury

Michael John Campbell
 Stephen Howard Cheeke
 Ndaona Chokani
 Foong Mooi Chua
 Nathan Greenleaf Congdon
 Philip Steven James Davis
 Fabio Salvatore Dimartino
 Thomas William Drummond
 Michael David Greenslade
 Andrew Jeremy Hartt
 Anthony Giles Timothy Heyes
 Julie Ellen Katzman
 Trea Mary Liddy
 Aiden Clifford Locke
 Andrew James Lomas
 Sara Katrina Mahoney
 Mark Antonin-Alisandre Willemoes
 Marignac De Cote
 Ian Alastair McIver Mowat
 Simon Douglas Munnery
 Justin Johann Hans-Hermann
 Needle
 Philippos Philippides
 Matthew Alan Reed
 Sirpa Helena Saarinen
 Douglas Fook Kong Shim
 Alexander Thomas Smith
 Daniel Sin-Yew Teo
 James Philip Montrose Wyllie
 Guo-Qiang Zhang

1986

Russell Thomas Ally
 Laura Jane Ashton
 Colin Christopher Byrne
 Arthur John Chapman
 St John Guy Coley
 Paul Walton Davies
 Abigail Jane Dobbyn
 Jake Alfred Buckley Gavin
 Elizabeth Ann Gleed
 Martin Paul Greiter
 Abhijit Guha
 Roger James Hamilton
 Owen John Harris
 Peter James William Herbert
 Saul Holding

Richard Owen Inglis
 Wickramaarachchige Weebadda Liyanage
 Keerthipala
 Dominic James Knight
 Yoshiharu Kohayakawa
 Man Lok Michael Lai
 Patrick Chee Tat Lim
 Dingfu Liu
 Terence Mun Loong Loke
 Nicholas Mark John Moffat
 Justine Anne Mooney
 Irfan Muzamil
 John Robert Rollason
 John William Scannell
 Yifeng Sun
 Mark Gaston Thornton
 Benjamin William Walker
 Rupert Arthur Wood

1987

Richard Alan Arnold
 David Rodney Brown
 Timothy John Chapman
 James Andrea Costantini
 Alexander Giles Davies
 Frank Christian Hammes
 Deborah Jane Hegan
 Arnold Conway Hunt
 Feng Jiang
 David James Jonas
 James Conrad Patrick Kelleher
 Panos Lambrianides
 Andrew Peter Mackenzie
 Paul Robin Manson
 Carole Yvette Nadin
 Matthew Dominic Parnell
 Stefan Prohaska
 Maharajapuram Venkataraman
 Ravichandran
 Meetwa Arnold Shilimi
 Chul-Woong Sohn
 Simon David Terrington
 Simon James Thomlinson
 Jonathan Robert Wardell
 William Roy Webster
 Matthew Loudon Nairn Wilkinson
 Mark Andrew Windle

1988

Joshua Damien Berke
 Ghazi Bin Mohammed bin Talal
 Vernon Robert John Clarke
 Matthew Couch
 Simon Lewis De Bourcier
 Roopinder Jit Dhillon
 Robert Allen Richard Dimbleby
 Jonathan Lee Feng
 Dominik Matthias Freye
 Michael Brian Gallagher
 Andrew James Judge
 Gurpreet Singh Khehra
 Pavel Kroupa
 Phillipe Lambilliotte
 Mark Page Loughridge
 Cara Marks
 Phillip Thomas Mills
 Jonathan Paul Moore
 Jane Patricia Napper
 Jonathan Miles Pritchard
 Jeremy Lewis Rashbass
 Ajay Skaria
 Sidney William Stansmore
 Joseph Andrew Sutcliffe
 Stephen John Terry
 Marianne Vignaux
 Dominic John Wise
 Ashley Colin Yakeley
 Xiao Feng Yang
 Jiang-huai Zhou

1989

Richard Anthony Beaman
 Evans David Chabala
 Ho Wai Chan
 Raymond John Clare
 Simon Lucas Cranshaw
 Frederic White-Brown Deleyiannis
 Steven Evans
 Sheila Ann Gomez
 Costas Ioannou Hadjiyiannis
 Rachel Emma Hanlon
 Victoria Jane Hobbs
 Michael James Indelicato
 Isabelle Georgette Nicole Le Berre
 Robert James MacKenzie
 Anne Margaret Molesworth

David St Clair Moore
 Srimurugan Ponnambalam
 Cristina Rada
 Nicholas Robert Ralph
 Alan Martin Stacey
 Andre Victor Aghayans Tabrizifar
 Virginia Man Leung Tam
 Eda Su Ling Tan
 Maxwell Lindley Taylor

1990

Michalis Averof
 James Butler
 Wei Chen
 Chun Tung Chou
 Monique Amon Marguerite Egli
 Claire Marie Farrimond
 Steffen Frischat
 Andrew George Green
 Peter Edward Grieder
 Erika Gesine Grosche
 Jonathan Patrick Groves
 Patrick David Groves
 Barnaby John Harkins
 Nina Harris
 Paul Anthony Hughes
 Nicholas Herbert Iredale
 Edward Kwaku Kutsoati
 Kam Tong Lo
 David Arthur Lomas
 Jason Stephen Alexander Merron
 Nathan Adrian Metcalfe
 Kiran Mirchandani
 Dominic Guy Severin Nelder
 Alistair Alexander Antony Parr
 Mark Gordon Riches
 Oliver Maxim Riordan
 Prashant Suryakant Savle
 Passwell Shapi
 Chrisitan James Shepherd
 A Shiraz
 Dov Joseph Stekel
 Nicholas Paul Vamos

1991

Alexander Ravindra Agarwal
 Elizabeth Charlotte Jane Alison
 Alfred Bertrand Bertrand

Michael Robert Button
 Owen Kyle Cameron
 Raphael David Cohen
 Karen Sarah Dunmore (Martland)
 Gregory Vincent Flynn
 Indranil Ghosh
 Philip J Goddard
 Emma Elizabeth Hardinge
 Sophie Elizabeth Haywood
 Matthew Stephen Horritt
 Sajjad Mohammad Jasimuddin
 Noel Rabul Karmarkar
 Yoshinori Kodama
 Robyn Renata Lim
 Xuehong Lu
 Yoew Chor Lu
 Carl Jason Morton-Firth
 Junya Nishiwaki
 Daphne Papantoniou
 Simone Parr
 Juliet Rosalind Amy Phillipson (Skrine)
 Anil Raghavan Pillai
 Gideon Ezra Pogrund
 Simon Ian Rabone
 Tom Redhill
 Nigel Thomas Savage
 Kristin Louise Scott
 Raed Salem Abdel-Fattah Shadfan
 Sanjeev Kumar Shukla
 Kevin David Skinner
 Emmanuel Ioannes Skouras
 Andrea Mae Swinton
 Stephen Mark Turner

1992

James Benjamin Bambrough
 Simon Eric Miami Barber
 Scott Joseph Bucking
 Grant Hilliard Castle
 Qin Chen
 Christopher Ian Craig
 Thomas Alan Donaldson
 Iuliana Simona Fagarasanu
 Paul Andre Garner
 Edel Margaret Gormally
 William Richard Gould
 Simon Martin Green
 Nicholas Hallam

Simon James Harrison
 Philip David Hills
 Timothy William Horton
 Jade Hung Jou Huang
 Thomas Miles Hyde
 Larissa Alice Ingoldby
 Conrad Michael James
 Haris Kessariss
 Nicholas Charles Koemtzopoulos
 Richard John Kunikowski
 Gregory David Landweber
 Antonia Madeleine Legg
 Victor Isaac Lesk
 Frederic Charles Henri Manin
 Jayanta Manoharmayum
 Rurik Miles Marsden
 Claudia Maria Miller
 Heather Kate Montgomery
 Jonathan Michael Murnane
 Niall Peter Murphy
 Katherine Kit Shuen Ng
 Andy Michael Noel
 Joanne Norman
 Kosuke Odagiri
 Carl Christian Holger Petersen
 Michael Joseph Quinn
 Emmanuel Marie Germain Rigaux
 James Alexander Rink
 Miles Sabin
 Andrew Peter Smith
 David Szuts
 Ngayu Munga Thairu
 Leslie Pam Turano
 Sonya Clare Unsworth (Foley)
 John Robert Van Peborgh Gooch
 Damon Wischik
 Jarrod Liang Ping Wong
 Virginia Elizabeth Wright
 Sergei Alexandrovich Zakin

1993

Daniel Charles Alexander
 Gordon Belot
 Andy Hong Nin Chai
 Melody Nikki Craff (Ma)
 Philip John Leslie Croft
 Radhika Dudhat
 David William Essex

David Anthony Hinton
 Benjamin Hippen
 Shaw-Shiun George Hong
 Alistair Samuel Duffield Jones
 Saber Mehboob Khan
 Arek Jeffrey Kizilbash
 Elizabeth Rosalia La Rocco
 Jonathan William Lisle
 Sean Nicholas Finbar MacGloin
 Rachel Jane Martin
 Anne Mesny
 Susan Clare Owen
 Alexandra Lvovna Persits
 Hazel Nadyezhda Polka (Pearson)
 James Portsmouth
 Annelise Riles
 Selina Tania Ross (Brister)
 Miles Walter Eldon Smith
 Lara Stoimenof
 John Sullivan
 John Mark Tabraham
 Paul Derek Treherne
 Robert Gerard Veal
 James Waters
 Ke Zhang
 Sergei Ivanocich Zharkov

1994

Ikechukwu Achebe
 Ali Abdur-Rahman Jonathan Westbrook
 Anders
 Sabine Bahn
 Samantha Jayne Bamford
 Inna Grigorievna Bashina
 Theo Norman Bertram
 Adam James Bromley
 Estelle Suzanne Cantillon
 Betty Tak Yi Chan Woo (Chan)
 Derek Shane Christensen
 John Canfield Hammill
 Mark Mowbray Hayward
 Nathalie Sylvie Laurence Henry
 Richard Paul Hudson
 Boris Kolonitskij
 Michael Wai-Hong Leung
 Julian Sean Murphet
 Shane Anthony Murphy

Anthony James Painter
 David Jonathan Andrew Primost
 Francesca Tania Quaradeghini
 Lucinda Frances Reynolds
 Sivasubramaniam Rubakumar
 Anupam Saikia
 Anya Rowena Serota
 Hoe Soon Tan
 Chuan-Tze Teo
 Rahul Vinci
 Justin Man Yip Woo

1995

Nicholas Guy Attwood
 Jennifer Anne Bloom (Luterman)
 Adam Walther Sezer Bostanci
 Keith Bradley
 Richard Donald Cameron
 Soren Rahn Christensen
 Anthony Roger Wilson Cox
 Maxim Peter Dolgikh
 Alexander Francis Dougherty
 Toni Ann Erskine
 Tom Evans
 Naomi Ruth Farr
 Wai Nam William Fong
 Wee Liang Gan
 Gordon Geoghegan
 Teniel Mark Gordon
 Matthieu Archibald Gounelle
 Jacob Paul Harders
 Robert Philip Hardy
 Richard Michael Wyn Harran
 Teemu Jyri Tapani Kalvas
 Attila Andras Kondacs
 Leonard Shallcross
 Isabelle Jacqueline Sirtaine
 Joshua Matthew Tyree
 Jeffery Philip Vernon
 Marc Trevor Warburton
 Wu-Khin Wee

1996

Johannes Martin Adolff
 Paul Best
 Nathalie Fabienne Lise Bourdeau
 Heera Chung

Matthew John Folwell
 Oliver Jonathan Isaacs
 Andrea Lesley Knox
 Akiko Mary Kobayashi
 Vidyassagar Koduri
 Poonam Madan (Gupta)
 Hing Yin Eric Pak
 Adam Andrzej Polka
 James Lewis Wilson Roslington
 Judith Roze
 Paul Scully
 George Gordon Shuffelton
 Christopher Julien Bouyer Sims
 Michael David Ross Thomas
 Daniel Karl Walter
 Dirk Andreas Wiegandt

1997

Denis Chigirev
 Ramzy Daou
 Rachel Joan Davies (Smith)
 Anna Claire Duschinsky
 Laura Jane Gladwin
 Thierry Gruslin
 Karl Hanks
 Anthony Harean Manilal
 Hettiarachchi
 Shu Heng Queenie Ho
 Mark Stephen Hypolite
 Andrey Ivanovich Ivanchenko
 Eira Margaret Jarvis (Lewis)
 Bastian Kubis
 Andrew Kuper
 Lefkos George Kyriacou
 Kwee Tee Lim
 Silje Henriette Amalia Normand
 Junichiro Otaka
 Natasha Peter
 Pooja Pradhan
 Ying Qian
 Shalini Raj-Lawrence
 Emma Rebecca Reilly
 Jennifer Croasdale Ross
 Natalia Evgenievna Rulyova
 Julie St-Pierre
 Benjamin Joseph Peter Thompson
 Craig Richard Thorrold

Gillian Ka Kai Wang
 Colin James Watson
 Gisa Suzanne Weszkalnys
 Tingsong Ye

1998

Matthew Stuart Ashton
 Angela Bachini
 Steven John Barclay
 Virginie Marie Louise Blanchard
 Christopher Thomas James Button
 Andrew Robin Edward Camden
 Connie Siu-Man Chan
 Andrew James De Souza
 Brian Robert Graskow
 Ivan Staykov Ivanov
 Adelaide Izat
 Moninder Jheeta
 Paul Anthony Johnson
 Thomas Mark King
 Asako Koizumi
 Nuha Mohamed
 Cecile Alexa Mouly
 Janet Wanjiku Ng'Ang'A
 Domagoj Racic
 Nikhil Sharma
 Timothy James Storer
 Katherine Hannah Margaret
 Sturgess
 Mio Takada
 Cain Samuel Todd
 Sinisa Urban
 Michal Mark Vine
 Peter Wagner
 Sophie Anna Westra (Powell)
 Justin Michael White
 Antony Ross Wildon
 Fiona Ruth Williams
 Laura Jane Wisewell
 Raymond Charles Woodring

1999

Gareth David Allwyn-Evans
 Tilewa Rebecca Baderin
 Kevin Terence Carson
 Sarah Jennifer Ford
 Quan Meggie Gan

Romain Garcier
 Gudfridur Lilja Gretarsdottir
 Justyna Paulina Gudzowska
 Stelios Karagiorgis
 Lukasz Kowalik
 Maurizio Lisciandra
 Tamas Janos Madarasz
 William James Muldrew
 Vikram Nair
 Mariko O'Shea
 Edward Parcell
 James Robert Percival
 Quentin Poirier
 Daniel James Pope
 Tomasz Lukasz Religa
 Maurice Anthony Ringer
 Charles Shen Ming Roddie
 Sarah LaBree Russell
 Anna Judith Schramm
 Amil Leonor Sierra
 Anna Alexandra Smielewska
 (Sobolev)
 Guy Alexander Taylor
 Francois-David Todd
 Ann Paule Benedicte Vaessen
 Patricia Jane Walmsley
 Edward Charles Egerton Weeks

2000

Michalis Agathocleous
 Caitlin Elizabeth Anderson
 Nicolas Batrel
 Jeremy Cheng
 Alexander Valchar Coffey
 Laura Elizabeth Corbett
 Matthew Dawber
 Michael John Dore
 Stephanie Odette Mary Dyke
 David John Gange
 Gunnar Fredrik Harboe
 Raihana Shams Islam
 Kenneth Jow
 Serena Sita Lennon
 Steven McKellar
 Matthew David Mott
 Takako Onozuka
 Katja Osswald

Gaye Ozyuncu
 Leonie See
 Christopher James Southworth
 Jeremy Francis Taylor
 Boon Lin Yeap

2001

Robert Keith Andrews
 Anton Berditchevski
 Christopher Edward Bunce
 Nicolette Campbell
 Joseph Mandla Unterhalter Crawford
 Donald Lindsay Stuart Dransfield
 Thomas Edwin Eyers
 John Torres Fremlin
 Benjamin Friedrich
 Sam Ghosh
 Hywel Ceredig Griffiths
 Ellen Joanna Guldi
 Andrew Masahide Hodge
 Niao Jiang
 Brian Anthony Ujnovich
 Anna Oates
 Caroline Elizabeth Reed
 Philip Stephens
 Justin Sieu-Sung Toh
 Henry Jeune Willans
 Christian Wuthrich

2002

Frederique Anne Lise Ait-Touati
 Christopher James Bunn
 Angela Ying-Ju Chen
 Graeme Lachlan Cuthbert
 Hoang-Vu Dang
 Amal Dorai
 Joao Pedro Pinto Dos Santos
 Emily Fox
 Christina Geijer
 William James Greenleaf
 Jonathan David Gross
 Vanessa Elisa Grotti
 Alexander Eugene Hasha
 Thomas Jonathan Wyndham Hill
 Monica Ho
 Ben Hopkins
 David Barrett Lee

Yi Shin Lee
Martina Miskufova
Rachel Pepper
Courtney Marie Peterson
Florian Olivier Quintard
Sarah Kistler Turner

2003

Oluwatoyin Ajayi
Ognjen Arandjelovic
Shruthi Bhagavan
Nathan James Bowler
Timothy John Dickinson
Robert Jonathan Fenster
Aaron Gruber
Victoria Marianne Hare
Samir Mohammed Osman Hassan Dirar
Scott Sang-Hyun Lee
Chi Shing Stephen Leung
Sarah Elisabeth Lilienthal
Stephen John Lycett
Celeste Powell
Shu Sasaki
Shuo Shang
Steffan Rhys Thomas
Sean Tulin
Jada Twedt
Caterina Violi
Victoria Lilian Weaver
Rochana Dharanga Wickramasinghe
Bernhard Windisch
Claire Patricia Wong (Massen)

2004

Yulia Artamonova
Mark John Betson
Alexander Chudik
Florian Gruessing
Christopher Hallsworth
Mike Alexandre Irasque
Ramsey Sulayman Khalaf
Omar Habib Khan
Chun Hay Kom
Robert Jamieson Millar
Matilda Mroz
Jiguo Qi
Matthew David Saba

Zara Shirazi
Ross Oliver Shurety
Adam Christopher Smyth
Katharine Elizabeth Stowe
Charles Strickland-Constable
Molly Kirsty Gordon Tregear
Jack Young

2005

Julie Barrau
Radhika Chaudhry Bhojania (Chaudhry)
Christopher A Coombs
Juliana De Urena
Richard Russell Fenn
Lauren Fly
Eli Jesse Philip Gothill
Jen-Yueh Randy Hu
Soleil-Lysette Kellar
Richard Samson Lebon
Ruoyang Li
Yaoyao Liu
Sorcha Mary McGinn
Anneka Wendy Munsch
Karl David Petersson
Wei Qian
David Rubin
Marcin Stefan Sablik
Yue Zhou

2006

Jacob Matthew England Barney
Marija Buljan
Patrick Edward Michael Croft
Adam John Csenki
Oliver De-Vine
Christopher James Elliott
Anna Ruth Fitzjohn (Jenkins)
Muxin Gu
Wenxin Hao
Pim Klaassen
Chawita Jelly Netirojjanakul
Arik Paran
Betwa Sharma
Isabel Frances Taylor
Christos Timagenis
Corinne Vannatta
Liang Xiao

2007

Abigail Juliet Brooks
 Hui Ming Chan
 Zhexiong Chang
 Samuel Cocks
 Yuki Kato
 Liam Mencil
 Stanley Ong Gie Shen Setiawan
 Konstantin Slivinskiy
 Felicity Lydia Irene Storey
 Alexander William Harcourt Winterbotham

2008

Vivien Bessieres
 Gloryn Le Bin Chia
 Frederic Clark
 Deidre Mary Cleland
 Ryan James Cooke
 Daniel Thomas Crosby
 Simon Adam Gentle
 Alexander John Kasas
 Bjorn Moller
 Hannes Schimmelpfennig
 Sebastian Schoefer
 Naif Bin Sultan Bin Abdulaziz Sultan
 Guo Wen Tan

2009

Ahmad Akra
 Emad Hanzala Atiq
 Raphael Francois Robert Cottin
 Ferenc Huszár
 Matthew Cedric Menzies
 Martin Mihelich
 Bastian Christopher Stern
 Jan-Philip Christoph Alexander Wilde
 Junjie Andrew Zhang

2010

Karrar Abidi
 Mélanie Beaumier
 Pamina Rebecca Bou
 Marton Bence Farkas
 Laura Profumo
 Nausicaa Renner
 Esther Claire Adrienne Smith

2011

Rachel Christie Fernandes
 Emily Weissang

2013

Rodolfo Agustin Diaz Cabello
 Adam Mohammad Khan

2014

George Ezenna

