BALLIOL WOMEN: 40 YEARS ON
Celebrating the anniversary of the admission of women students in 1979

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‘Stimulating’, ‘academic’, ‘inclusive’: I’ve been looking again at the words which Old Members chose in our alumni survey as those they were most likely to use to describe Balliol. In my first year I’ve certainly found our College to be these three things, and to have the many other positive qualities that were identified.

One occasion summing up our ‘stimulating’ and ‘academic’ ethos was at the Praefectus’ Seminar I gave in Hilary Term at Holywell Manor on the implications of Brexit for UK politics and constitution. ‘Clinging to the Wreckage’ was my somewhat colourful title. I was aware that some in the room, including a distinguished array of Fellows, would know a great deal about the context. The MCR was packed, attention and interest were palpable, and the discussion afterwards was perceptive as well as stimulating – undoubtedly Balliol at its best.

Later in Hilary Term, I found myself in a very different environment, sitting in the front row at the Michael Pilch Theatre in Jowett Walk, watching the JCR’s production of Julius Caesar: The Musical. Scripted, designed, choreographed and composed entirely by undergraduates, it was witty, clever, perceptive, funny and very entertaining (even when Julius sat himself on my lap at one point). After an evening of ‘excellence’ and ‘fun’, I left the building grinning and very proud of our talented students.

With numerous alumni events in Oxford and in London under my belt, as well as several overseas visits, I can also vouch that the words ‘challenging’ and ‘intellectual’ well describe Balliol beyond the College walls. Whether at a formal dinner, an informal tea, over drinks or meeting one-to-one, there is never pause to talk about the weather: Balliol alumni dive straight into serious discussion of current politics or science, culture or society, with a characteristic range of well-informed and well-argued points of view.

Another Balliol trait that Old Members identified is ‘traditional’; but so too is ‘progressive’, reflecting the fact that the context is always changing. At a time when, in its latest strategic plan, the University is proposing significant expansions of graduate places, and some increase in undergraduate numbers in strategic subject areas including computer science and biomedical sciences, here in College we have been thinking about our academic ambitions. To what extent does Balliol want to move in the same direction? How far do we want to rest on our traditional strengths, or could we balance that with expansion in newer areas? These are among the issues that the Governing Body will be discussing in the coming year.

Remaining ‘inclusive’, ensuring that the most talented students, nationally and internationally, come to the College whatever their circumstances, is also a challenge of continuing importance to us all. To that end, we are enormously grateful to alumni – putting into action the word ‘supportive’ – for giving so generously towards outreach activities and for helping us make sure that finance is never a barrier for students.

When the University published in May this year its latest report on the diversity of UK undergraduates, although there were many positive trends both for Balliol and the University our figures for undergraduate gender balance (for the three years to 2017) were still disappointing, at only 39% female. We’re doing more and more to improve diversity at Balliol – the women-only PPE Taster Day for year 12 students from state schools being a recent example of initiatives aimed at addressing this. In December 2018 we made more offers to female students than to males – a hopeful augury for our celebrations starting later this year to mark the 40th anniversary of Balliol opening its doors to female students and becoming co-educational. You can read all about our plans on page 44.

Finally, the College has a very strong and distinctive sense of ‘community’, and it has confirmed my view that maintaining and deepening that community is one of my most important roles as Master. I hope when you read this edition of Floreat you will feel we are living up to your beliefs in what the College should stand for.
Awards

New Year Honours

**Martin Taylor** (1970): Commander of the British Empire (CBE), for services to the economy. Martin Taylor is Vice-Chairman of the Board of RTL Group and a member of the Bank of England's Financial Policy Committee. He is the former Chairman of Syngenta AG and was a member of the Independent Commission on Banking. Originally a journalist, he has been Chairman of WHSmith plc (1999–2003), and Chief Executive Officer of Barclays plc (1993–1998) and Courtaulds Textiles (1990–1993). From 1999 to 2005 he was an adviser to Goldman Sachs International.

**Professor John Christopher McCrudden** (Junior Research Fellow in Law 1977—1980): Commander of the British Empire (CBE), for services to human rights law. Christopher McCrudden is Professor of Human Rights and Equality Law at Queen’s University Belfast and William W. Cook Global Law Professor at the University of Michigan Law School, and a practising barrister. Until 2011, he was Professor of Human Rights Law at Oxford University and a Fellow of Lincoln College. Currently, his research deals with the foundational principles underpinning human rights practice. He was awarded the American Society of International Law’s prize for outstanding legal scholarship in 2008. He is a Fellow of the British Academy and a Member of the Royal Irish Academy.

**James Richardson** (1985): Companion of the Order of the Bath (CB), for public service. As Chief Economist at the National Infrastructure Commission (NIC), an independent body providing expert advice to the government on pressing infrastructure issues, James Richardson led the NIC’s production of the first ever National Infrastructure Assessment (2018): an in-depth assessment of the UK’s major infrastructure needs and how they should be addressed. Prior to joining the NIC, he was at HM Treasury, as Director, Fiscal and Deputy Chief Economic Adviser, and before that as Director, Public Spending and Chief Microeconomist.

**Professor John Birney FRS FMedSci** (1992) (known as Ewan): Commander of the British Empire (CBE), for services to computational genomics and leadership across the life sciences. Ewan Birney is Joint Director of the European Bioinformatics Institute (EMBL-EBI), where he runs a research group. He worked on the initial human genome project and led the analysis group in the first two phases of the international ENCODE project, which is working to define functional elements in the human genome. His current research focuses on algorithms and statistical methods to analyse genomic information, compression of sequencing data and methods to use DNA as a digital storage medium. He has received many awards, including the 2003 Francis Crick Award from the Royal Society. He is also a non-executive director of Genomics England.

Fellows

Royal Society University Research Fellowships have been awarded to **Adam Nahum** (Research Fellow in the Sciences) for his research in quantum entanglement and random geometry, and to **Ohad Kammar** (Career Development Fellow in Computer Science 2017–2018) for his research on ‘effectful theories of programming languages: models, abstractions, validation’.

**Ohad Kammar** also received a Distinguished Paper Award at the Association for Computing Machinery’s annual Symposium on Principles of Programming Languages, for a paper of ‘relevance, originality, significance and clarity’. Ohad says it ‘was completed entirely during my Career Development Fellowship. The long duration of the Fellowship, and the careful balance between research and teaching loads, were crucial in allowing me to focus on an ambitious problem and help solve it.’

**Vicky Neale** (Whitehead Lecturer in Mathematics and Supernumerary Fellow) won a Suffrage Science award in maths and computing. Run by the Medical Research Council’s London Institute of Medical Sciences, the awards aim to celebrate female scientists and to encourage others to enter science and reach senior roles. Vicky’s nominator said ‘she is to me an exemplary mathematics communicator. She conveys the beauty
of the subject with enthusiasm and authority, bringing quite complex ideas within the grasp of everybody.'

Nick Trefethen (Professor of Numerical Analysis and Professorial Fellow) has been granted the title of Doctor honoris causa by the University of Fribourg in Switzerland and an honorary degree by the University of Stellenbosch. Professor Trefethen leads Oxford’s Numerical Analysis Group.

Students

Maya Krishnan has been elected to a Fellowship by Examination at All Souls College, Oxford. A Rhodes Scholar, Maya is in her second year of a BPhil in Philosophy.

Arman Karshenas, a second-year Engineering Science undergraduate, was in the Oxford team who won Best Therapeutics Project award and a gold medal in the International Genetically Engineered Machine (iGEM) competition, which gives interdisciplinary teams the opportunity to push the boundaries of synthetic biology whilst tackling everyday issues facing the world. Arman’s team won the award for developing a novel treatment for inflammatory bowel disease.

Barbara Souza was awarded best poster prize at MOF 2018, an International Conference on Metal-Organic Frameworks (MOFs) and Open Framework Compounds – the most important conference in the field. Barbara is reading for a DPhil in Engineering Science in the Solid Mechanics and Materials Engineering Group, under the supervision of Professor Jin-Chong Tan (Fellow and Tutor in Engineering Science).

Talita de Souza Dias was awarded the Journal of International Criminal Justice Prize 2018 for her article ‘The Retroactive Application of the Rome Statute in the Cases of Security Council Referrals and Ad Hoc Declarations: An Appraisal of Existing Solutions to an Under-discussed Problem’, JICJ (2018) 65-89. The journal is the most important journal in the field of international criminal law.

Old Members

Tom Douglas (Junior Research Fellow in the Humanities 2011–2013) was awarded a European Research Council (ERC) Consolidator Grant for a five-year project entitled ‘Protecting Minds: The Right to Mental Integrity and the Ethics of Arational Influence’. He is now a Senior Research Fellow at the Oxford Uehiro Centre for Practical Ethics.

Jonathan Meakins, former Nuffield Professor of Surgery (2002–2008) and Professorial Fellow at Balliol, has received the degree of Honorary Doctor of Science, honoris causa, from Western University in London, Ontario.

Martin Edwards (1974) won the Crime Writers’ Association Dagger in the Library award 2018 ‘for a body of work by an established crime writer that has long been popular with borrowers from libraries. It also rewards authors who have supported libraries and their users.’

Paul Williams (1995), Professor of Atmospheric Science at the University of Reading, won the runner-up prize in the Societal Impact category of the NERC Impact Awards, which recognise work that has had substantial impact on the economy and society in the UK or abroad: he describes this work on page 14.

David V. Williams (1969), Emeritus Professor of Law at the University of Auckland, has been elected as a Fellow of the Royal Society of New Zealand.

The Hon John F. Godfrey (1965) was appointed a Member of the Order of Canada (CM) for his commitment as a public servant and educator who has enriched Canada’s media landscape.

Former medical student Dr Farrah Jarral (Balliol 2000) has been awarded an Alistair Horne Visiting Fellowship at St Antony’s College, Oxford, ‘designed to encourage the completion of works in modern history and biography’.

Suzannah Lipscomb (2004) has been elected a Fellow of the Higher Education Academy and appointed as a Professor of History at the University of Roehampton in January 2019.

Tim Soutphommasane (2004), a human rights advocate and political theorist, has been appointed the University of Sydney’s first Professor of Practice (Sociology and Political Theory).

Frances Flanagan (2005) has been awarded a Postdoctoral Fellowship at the University of Sydney, in order to conduct innovative, multidisciplinary research at the university with the University’s Business School and Policy Lab.

There is more news of Old Members in News and Notes, a supplement to this magazine. To subscribe to our monthly e-newsletter, you can update your preferences on our website or contact development.office@balliol.ox.ac.uk.
Brought to you by the Archivist and Records Manager, Bethany Hamblen, her role is different from that of her predecessor, Anna Sander. Since Balliol’s Historic Collections Centre at St Cross opened in 2011, the collections have become more integrated into the rest of the work of the Library, and now all the Library staff, not just the Archivist, work at St Cross – preparing exhibitions, receiving visiting schools, invigilating researchers, and so on. As Archivist and Records Manager Bethany shares this work, while focusing on Balliol’s institutional archives and the management of its administrative records.

Currently Bethany, with the help of the Library team, is stock-checking all the archives – a task that will take some months and will provide the groundwork for easier retrieval and more comprehensive recording of the holdings. She is exploring new software systems for organising the archives and displaying them online, and for preserving electronic records. She will be establishing a new records store at Broad Street and, working with all College departments, she will be developing a programme for the management of modern records, including the transition of documents to the archives, retention schedules and other processes required by recent data protection regulation.

For all these activities her previous job as archivist at Hereford Cathedral, its archives not so different from Balliol’s, was good experience, as were her eight years as part of a team of archivists at Worcestershire County Council, and of course her archivist training at Aberystwyth University. A BA and MA in Medieval Studies and PhD in History qualify her well for the role too.

As Bethany has been getting to know the College and its collections, the friendliness of everyone at Balliol has helped enormously, she says; she is especially grateful to Emeritus Fellow John Jones for his assistance and his College History – its excellent footnotes in particular. She also likes Oxford’s collaborative nature, which means she has access to colleagues at all the other college archives. ‘I’ve never before been in a city where there are so many people working as archivists.’

On 13 March 2019 Professor Sophie Marnette (Professor of Medieval French Studies, Dervorguilla Fellow and Tutor in French) was admitted as Junior Proctor of the University. Preceded by a Bedel, Fellows of Balliol processed with Professor Marnette to the Sheldonian Theatre, where the Master presented her to the Vice-Chancellor and she received the insignia of her office: the statute book and keys. The University has two Proctors and an Assessor, who are elected annually by the colleges in turn – a system that means that a college elects a Proctor roughly about every 12 years. After the ceremony, there was a luncheon in Hall to celebrate this very special occasion.
New accommodation blocks have been rising steadily next to the Master’s Field since construction work began on the site (on the corner of Jowett Walk and St Cross Road) in February 2018. By the time you read this, Block A will have been completed and current graduate students will have moved in – temporarily – so that the Dellal and Martin buildings can be demolished.

Block A – to be renamed in due course – is one of the five undergraduate blocks that are to be built in phase one. Inside, the students’ study bedrooms enjoy large windows with a view, while being companionably grouped in clusters of four to six around a shared space with a table and a kitchen. Doors between each cluster mean that students can either be together in their own cluster or open their space up to be sociable with those in adjacent clusters. Each bedroom has a sleeping area, and a seating area by the window with a well-lit desk; a bathroom fits neatly by the outer door, opposite wardrobe space.

All experience gained on Block A is now being applied to Block B, next in line for completion. With 100–150 workmen (from BAM Construction) on site on any one day, the block is a hive of finishing activity: dry lining, plastering and decorating, flooring, and carpentry installation. That block includes a large undergraduate common room, a disabled lift and access, a spacious flat for the visiting Eastman Professor and seven sets for Fellows.

A visit with the Master, Domestic Bursar, other members of the Master’s Field committee and Bidwells, who are managing the project, gives one a glimpse of the multitude of decisions that need to be made at any stage. Do the kitchen surfaces give students enough room for food preparation? Which way should the weave of the carpet go? From signage to furniture, choices are guided by practicality, aesthetics and cost.

Elsewhere, the other three undergraduate blocks are at varying stages. Because the development champions ‘off-site manufacture’, they are made of Cross-Laminated Timber (CLT) frames, CLT being sustainable and reducing deliveries during construction by 80 per cent; the bathrooms are delivered as prefabricated ‘pods’ and loaded straight into the bedrooms as the structure goes up; the façade is made of 1,631 individual factory-made pre-cast components. These include panels designed by Niall McLaughlin Architects to imitate a weave design used on the frieze of the Ashmolean Museum (below). At the centre of the quadrangle of undergraduate buildings is a veteran beech tree and this pleasing layout is enhanced by views through all the buildings on to the playing field.

Another key area of activity during this phase has been the basement of the pavilion that will be at the centre of the development. Known as the energy centre, the basement will house electrical plant and other machinery, as well as a squash court and changing rooms.

The demolition of Dellal and Martin buildings will make way for the five graduate accommodation blocks, which will be built in phase two of the project. Altogether there will be over 200 study bedrooms for students. Not only will the College be able to house more of its graduates: crucially – as accommodation is a critical factor when prospective applicants are choosing a college – Balliol will be able to offer accommodation to all its undergraduates for the duration of their time at Oxford.
Oxford can be a pressure cooker of opportunity, workload, and distraction. Every single student here will find themselves confronted with multiple and mutually exclusive demands on their time and have to make hard choices and find trade-offs. Is it more sensible to spend the Christmas break revising for exams or pursuing internship applications? Can your long-distance relationship survive both the demands of your workload and taking up that place in the A boat for the College rowing team? Is academic success or a flourishing social life more important to your wellbeing?

A large part of peer support is trying to help people figure out which choices are right for them, irrespective of the institutional and personal pressures they may face. This does not mean ‘advising’ them: far from it. Rather, it is about creating a space for individuals to consider their own wants and needs in an environment that frequently drowns them out and then supporting them in their decision. A significant dimension of wellbeing in Oxford, or any high-pressure environment, entails creating one’s own standards and expectations to live by.

The so-called ‘Oxford experience’ varies substantially from person to person. One way this becomes evident is through the divergent impacts the various graduate courses have on student mental health. Those on one-year research Masters often feel isolated, overworked, and alienated by the many peculiarities of Oxford life. Students undertaking taught courses frequently feel pressured to perform competitively against their peers and suffer from a form of ‘culture shock’ as regards the marking system at Oxford, where 70 is considered a rare and impressive mark. DPhil students, by contrast, are often trying to juggle the partial transition between student and teacher and navigate the choppy waters of early academic careers.

Background and personal circumstances also play a huge role.
Many students suffer from imposter syndrome or endure substantial personal upset during their time here, but, for whatever reason, they do not feel comfortable speaking to professionals. Peer supporters are there to provide an option between friend and professional. This intermediary role is also instructive for the peer supporters, as we quickly learn not to take a cheery exterior at face value. Taking time to ask questions and engage with other students in an informal environment allows us to foster a more organic and solidaristic form of support than is usually provided in a professional setting. Frequently, however, it becomes clear that the student concerned would in fact benefit from professional support, and in such cases it is our job to encourage them to seek this out and practically assist in this process where possible.

Selected peer support applicants are trained by the University Counselling Service for a whole term before beginning their commitments, which is often a transformative experience for the participants. It is a wonderful opportunity to meet other students from a wide range of personal and academic backgrounds, all bringing something different to the table. In teaching us how to provide support for those around us, the training invariably teaches us how to provide support for ourselves. The insights gained and capacities built through this programme will stay with the peer supporters for life, and we are all grateful to have been given this opportunity by the College.

Dominic Newman
JCR peer supporter

The first stage of being involved in peer support is training, which lasts a total of 30 hours over one term. Although this seems like an intimidating amount, our three-hour training sessions quickly became one of my favourite times of the week. Each session would be loosely based around issues such as confidentiality, active listening, assertive communication, family and cultural contexts, and crisis management; sessions were largely conducted through interactive activities such as guided group discussions and one-on-one listening exercises during which we would share personal feelings and experiences. This helped to create an environment in which thoughtful and honest conversations around wellbeing and mental health were not only possible but encouraged – an unusual but incredibly meaningful experience within university life.

Balliol’s JCR peer support team is usually made up of four to six students each year, and the idea of the role is that we are able to provide emotional support to other students struggling with any aspects of their lives at university. In practice, this support can range from informal conversations about issues such as academic stress or problems in personal relationships to helping students navigate difficult situations in which they might feel uncomfortable about contacting College or university authorities directly; we are trained to direct individuals to other available practical and support resources wherever appropriate.

Despite the large variety of situations that this broad job description can involve, one thing that has consistently impressed me is the importance of offering people a chance to talk about their problems. I have been amazed at the way in which learning to listen in a supportive and non-judgemental way has transformed my relationships both with friends and with people using the peer support service. Feeling that someone trusts you enough to share their problems with you, and seeing the ways in which this can help them, is by far the most rewarding part of the role.

As well as the practical, one-to-one element, being a peer supporter has been a great opportunity to get involved in the College community in a productive way. The peer support team hosts regular activities like film nights, brunches, and a ‘text-a-teacup’ week in which we take hot drinks to students’ rooms, as well as meeting regularly with Bruce Kinsey (Chaplain/Wellbeing and Welfare Officer), and with peer supporters at other colleges to discuss how to improve the University’s mental health support systems. The opportunity to contribute on both a personal and institutional level to the welcoming and supportive community at Balliol has made being a peer supporter one of the best parts of my time at Oxford.

Welfare support at Balliol

Balliol offers students a range of trained welfare support. Leading the team is Wellbeing and Welfare Officer Bruce Kinsey, a trained counsellor and a registered psychotherapist with wide-ranging experience as Chaplain. Bruce also refers students to others when they are better placed to help. Since many problems relate to health, the College Nurse plays a key role. The Junior Deans and the Jowett Wardens are a first port of call in many circumstances. Balliol also has its own Student Counsellor, who provides a weekly confidential space for students’ emotional concerns and issues. He is a counsellor at the University Counselling Service, where students can make appointments or access online self-help resources – for example, on performing academically, advice for Freshers, anxiety and perfectionism. Or students can go to Balliol’s peer supporters.

The College Doctors, academic administrators, Student Finance Officer, porters, disability leads, Praefectus and Assistant Praefectus, and welfare officers in the JCR and MCR are among many in College who are on hand to help. There are more resources in the wider university: as well as Balliol’s own Harassment Officers, for example, students can turn to the OU Sexual Harassment and Violence Support Service.

For information about all welfare resources, see www.balliol.ox.ac.uk/wellbeing-and-welfare.
Watching the sci-fi action movie *Alita* recently, I was particularly touched by the scene when Dr Ido transplants Alita into the Berserker body, which was made by lost technology from 300 years ago and has the potential to destroy anything. Dr Ido tells Alita, ‘This is just a body. It’s neither good nor bad. Its impact depends on you – your intention.’

Alita is a cyborg, made with the most advanced technology, and she has an almost human-like brain that allows her to feel, think, reason, develop her own morality and make decisions. In reality, before we can reach that kind of magic-like technology, what do we mean by the intention of a machine? We generally refer to computer algorithms as artificial intelligence (AI) systems, but do they really have a sense of intelligence? Wait a second, what is intelligence after all?

All these questions are fascinating and I am so lucky that I can dedicate four years in my DPhil study to attempting to answer (at least a small part of) them here at Balliol. Research in AI has achieved wonderful results in various well-defined tasks in the last two decades. For example, an AI algorithm can recognise different objects in a single image amazingly well using a technique called convolutional neural network (described in news articles as ‘deep learning’). In a 2017 research challenge, ImageNet, where computer algorithms were required to recognise objects in 1 million colour images, several state-of-the-art algorithms reached above 95% accuracy, even beating human contestants. In another domain, that of speech recognition and synthesis, AI algorithms have already proved to have significant commercial value, with 1 in 10 Brits owning a smart speaker, according to a YouGov study in 2018 Q1, and more than 100 million Alexa-enabled devices have been sold to consumers by January 2019, according to Amazon. In terms of the ability to develop complex strategies, AI algorithms have also shown potential in beating humans in games, such as Go (AlphaGo defeated Korean Go master Lee Sedol 4–1).

Despite all these achievements, researchers are unsure how such results are reached: whether the knowledge of completing one task, such as object recognition through visual input, can be transferred to other tasks, such as speech.

‘What really defines us as intelligent beings is not the ability to master a single task but the ability to generalise from one task to another’
Reconstructed celebrity faces from the internal understandings learnt by three different methods: AEVB, WAE, and that of Shuyu Lin’s team, WISE-VAE UB,(CelebA dataset). The top row, GT (ground truth images), shows the original face images.

recognition; and, more fundamentally, whether an AI algorithm can gain a meaningful (human-like) internal understanding of its observation of the world and apply this understanding to any potential objective. Such questions are leading to a popular topic in the giant AI research roadmap: representation learning.

This is where my research is positioned. I believe this thread is valuable because what really defines us as intelligent beings is not the ability to master a single task but the ability to generalise from one task to another, even if the tasks appear massively different, i.e. with different actions, scenarios and objectives. To achieve generalisability, we should not focus too much on the differences between two tasks but rather start by understanding the common ground between them, because the mutual information between tasks is the only part that an intelligent system can use to transfer its knowledge of past experiences and to make sensible decisions about it. To do this, it needs the ability to derive an abstract and compact representation of its raw observations.

In recent work with my collaborators from Imperial College London and ABB Research in Switzerland, we have proposed an algorithm that can develop a good (smooth, abstract and compact) internal understanding of complex data, such as images and time series. The objective is to learn the underlying statistical structures of the input data, as we can design a learning signal depending on the input data to guide the learning process of an AI algorithm. For example, in our proposal, we require the AI algorithm to reproduce the input data from the internal understanding it develops, and to minimise the difference between the reproduced input data and the original input data, which incentivises the AI algorithm continuously to improve its understanding.

In one example of human face recognition, AI algorithms are required to reproduce a human face image from an internal understanding they develop about this image, and the quality of the reproduced human face indicates the quality of the understanding the AI algorithms possess.

Our algorithm WiSE-VAE manages to predict human faces that are much closer to the original images than those faces reproduced by other methods, which are often blurry and in which personal characteristics are often ignored, or are distorted as the algorithms struggle to discover the right elevation and azimuth angles of the faces.

Exciting news appears almost every day in AI research nowadays. However, we should not exaggerate the (very) limited understanding we have about intelligence, not to mention reproducing it artificially: there is still a long way to go.
Human beings are visual creatures, but most other animals live and die by their sense of smell. Even humans, however, can discriminate among millions and millions of different odorants over a vast range of concentrations. Our olfactory system works by recognising the pattern of the responses of hundreds of different sensors (the olfactory receptors) in the uppermost part of the nasal cavity.

My students and I have developed an ‘optoelectronic nose’ that converts olfactory-like molecular interactions into visual output. We imitate olfactory pattern recognition by using the colour changes of an array of chemically responsive dyes: essentially a digital, multidimensional version of litmus paper (Figure 1), which we sometimes refer to as ‘smell-seeing’. These dyes change colour depending on their chemical interactions with odorant molecules in the air. Although no single chemically responsive pigment is specific for any one analyte, the pattern of colour change for the array proves to be a powerful method for differentiating one odour from another. The colour difference patterns are unique molecular fingerprints that can identify specific pollutants, toxic gases, different bacteria, or even one single malt Scotch from another.

The sensor array is small (less than 1 cm²) and disposable; we generate these arrays with a robotic pin-printer or an inkjet printer. The arrays are then imaged, which can be done by an ordinary inexpensive flatbed scanner, a fancy digital camera or, just as easily, an everyday cell phone. We have also built a self-contained hand-held analyser that uses a line-imager of the sort used in business card scanners.

The chemical or industrial workplace has no equivalent of a radiation badge for monitoring individual exposure to potentially toxic gas or vapours. For the detection of volatile organic compounds (VOCs), we have demonstrated excellent discrimination with extremely high sensitivity for

![Image: Figure 1. Smell-seeing uses the colour changes in an array (1cm²) of chemically responsive dyes. We generate a difference map simply by subtracting red values of the image before odorant exposure from red values after exposure, green from green, and blue from blue, and so quantitatively compare the digital images before and during exposure; grey outlines mark the sensor spots with the greatest colour changes.]

‘The colour difference patterns are unique molecular fingerprints that can identify specific pollutants, toxic gases, different bacteria, or even one single malt Scotch from another’
a wide range of toxic industrial chemicals (TICs) (Figure 2). Striking visual identifications of many TICs – for example, hydrogen sulphide, ammonia, sulphur dioxide – can be made down to part-per-billion (ppb) levels with sensitivities better than gas chromatography-mass spectrometry detection, the gold standard for gas analysis.

Classification analysis (very similar to the comparison between genomes of different species) reveals that the colorimetric sensor array has an extremely high dimensionality, with the consequent ability to discriminate among a large number of TICs and explosives over a wide range of concentrations. For complex mixtures, fingerprinting through the colour difference pattern permits exquisite discrimination among very similar aromas. We can tell the differences among different brands of coffee (Figure 3), beer, soft drinks and whiskies – indeed, we can detect the watering of whisky with as little as 1% dilution.

The technology is also particularly suitable for detecting many of the most odiferous compounds produced by bacteria, for example from food spoilage or from body odour. We are able to distinguish bacterial growth at very low levels of detection and we can easily identify one pathogenic bacterium from another during growth from their smell within a petri dish or a liquid culture (Figure 4).

Our most recent project has involved monitoring artwork exposure to pollutants during exhibition. Just as people need protection from air pollution, so do cultural heritage objects, but even more so (because works of art do not heal and do not have limited lifetimes, as humans do). The desired pollutant concentration limits for sensitive artwork are generally only ~1% of the permissible exposure limits for human exposure and are at or below the low ppb regime. Monitoring pollutants at such low levels is an exceptional challenge, especially in a cost-effective fashion in a large number of locations and micro-environments.

To meet this challenge, we have used new sensor array chemistry to develop cumulative colorimetric sensor arrays. The resulting disposable sensor arrays are inexpensive, cross-reactive sensors using a wide range of chemical interactions with analytes. Importantly, they have been specifically engineered to be insensitive to humidity changes.

We have broadened these studies through a collaboration with the Getty Conservation Institute and the Disney Animation Research Library (DARL), both in southern California. DARL recently had its first exhibition in China of original Disney artwork, entitled ‘Drawn from Life: the Art of Disney Animation Studios’, featuring animation drawings, story sketches, layouts, backgrounds, and concept art spanning the 90 years of the Walt Disney Animation Studio’s history. Naturally, there was concern about the potential effects of air pollution on the artwork during the exhibition. By using cell phone camera imaging, we were able to make field observations on pollutant exposure of sensor arrays mounted inside and outside the passepartout framed artwork during both shipping and exhibition.

Let me close by giving my deepest thanks to the Fellows and students of Balliol for a most welcoming stay as this year’s Eastman Professor.

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The Black
Spartacus

Sudhir Hazareesingh (Fellow and Tutor in Politics) has been researching Toussaint Louverture, who spearheaded the Haitian revolution.

A recent sabbatical allowed me to complete my next book, a biography of Toussaint Louverture. He was the spearhead of the Haitian revolution, an uprising which began in 1791 with a slave revolt in the French colony of Saint-Domingue, and culminated in the proclamation of the world’s first independent black Republic in 1804.

Although Toussaint did not live to witness this climax, he decisively shaped the course of the revolution: after the abolition of slavery in 1793, he became the leader of the colony’s 500,000 blacks, the commander of its republican army, and eventually its governor. In 1801 he promulgated an autonomist constitution in which slavery was ruled out ‘forever’. Treacherously captured by Napoleon’s invading army a year later, and imprisoned in a French fort, he ended his days as the revolution’s most eminent martyr, mourned in Wordsworth’s elegiac poem.

For the biographer, Toussaint is a fabulous (if daunting) subject. He confronted the mighty forces of his age – slavery, settler colonialism, imperial domination, racial hierarchy, and European cultural supremacy – and bent them to his implacable will. As the world’s first black superhero, he defied convention: as a slave who achieved emancipation, as a black man who ascended to supreme power, and as a great captain whose triumphs against French, Spanish and British troops subverted existing martial norms. Yet he was wonderfully enigmatic, and since the early 19th century his biographers have painted him in diametrically opposing ways. For his admirers, he was a progressive who brought enlightenment to Saint-Domingue (hence C.L.R. James’ still classic Black Jacobins), and anticipated the anticolonial revolutions of the modern era. For his critics, he was a tyrant who brutalised his black and mixed-race brethren, cynically betrayed the Revolution by allying himself with white settlers, and visited disaster upon the colony by impertinently challenging French rule.
I am very much with the admirers. But they have underestimated Toussaint by portraying him as a mere disciple of European philosophical rationalism. He was a much more excitingly polyphonic figure, who combined French republican values with a range of African and Caribbean influences. This méissage shines through in the book’s organising concept, the ideal of fraternity. Toussaint and his black revolutionaries invented an original version of brotherhood: it wove together, in a magnificent tapestry, Enlightenment thinking, Saint-Domingue’s syncrétic Catholicism, elements of runaway marron slave culture, as well as African royalism and Caribbean spirituality (notably the emerging vodou religion). His was also a more comprehensive rendering of fraternity, fully embracing the principle of racial equality. I argue that brotherhood underlay every aspect of Toussaint’s world view, from his private qualities of compassion and generosity to his practice of military virtue, his vision of black unity, his religious and spiritual norms, his civic coalition-building, and his utter dedication to preventing European imperialists from reimposing slavery in Saint-Domingue.

It has been fun to write this book, because it got me back to the archives. One of the curiosities in the bibliography of Toussaint (and the Haitian revolution more generally) is the widespread belief that the archives have been ‘done’, and that there is little new primary material to be uncovered; and so, in recent decades, most of the writings on Toussaint have come from literary scholars. Yet as I started exploring the copious holdings on late 18th-century Saint-Domingue in French, Spanish, American, and British archives, I found a wealth of captivating material about Toussaint’s leadership, often either untouched or only very selectively cited; this included his notes and letters, of which around 1,600 have survived. So rich were these pickings that they formed the basis of entire chapters in my book, on key subjects such as his military art, the local underpinnings of his rule, his revolutionary political style, and the thinking behind his constitution. The bulk of these Toussaint papers were in France, and so I ended up spending many blissful months in the Archives Nationales, the Bibliothèque Nationale, the Archives Diplomatiques, the Archives d’Outre Mer in Aix, the military archives at Vincennes, as well as regional depots such as Nantes and Bordeaux. The most unexpected treasure haul came from the British archives in Kew, which coughed up some uniquely informative reports about the final years of his leadership, thanks to the observations of British consul officials based in Saint-Domingue between 1799 and 1801. Such was the eclectic range of Toussaint’s appeal that he was feted by racist British officials and greedy American merchants, just as he was being idolised by slaves all over the Atlantic.

‘Such was the eclectic range of Toussaint’s appeal that he was feted by racist British officials and greedy American merchants, just as he was being idolised by slaves all over the Atlantic’

The voluminous repositories of Toussaint documents allowed me to write this biography in the way I wanted: to follow his every step during the most critical episodes of his career, to see him wrestling with his dilemmas and contradictions, and to bring the narrative constantly back to his core principles. My hope is thus that the book allows his singular voice to come through, with as few extraneous ideological and cultural distortions as possible. Toussaint Louverture was a shooting star in the tropical firmament: a charismatic ruler full of pride, energy, and playfulness. It was not all plain sailing. I found almost nothing in the archives on the first 50 years of Toussaint’s life, during which he was enslaved for most of the time; reconstructing the social and cultural forces which shaped his personality thus required some deft (but hopefully informed) speculation about indigenous and African cultures in Saint-Domingue. The dastardly French also threw away a box containing his love letters when they captured Port-au-Prince in 1802, destroying the material traces of his colourful vie galante (he was a bit of a lad). Also, 90 per cent of the archived material is in French, even though Toussaint often spoke kreyol (which, incidentally, is much like Mauritian kreyol), especially when he was haranguing his soldiers and the colony’s peasants; little of this material was written down. And except for a few tantalising allusions (e.g. a reference in a letter to a plume he wore on his hat as a good luck charm), the documents are mostly silent on the ‘magical’ aspects of Toussaint’s life—his African herbal science, his natural cosmology, and his vodou affinities.

But the voluminous repositories of Toussaint documents allowed me to write this biography in the way I wanted: to follow his every step during the most critical episodes of his career, to see him wrestling with his dilemmas and contradictions, and to bring the narrative constantly back to his core principles. My hope is thus that the book allows his singular voice to come through, with as few extraneous ideological and cultural distortions as possible. Toussaint Louverture was a shooting star in the tropical firmament: a charismatic ruler full of pride, energy, and playfulness, driven by a strong sense of duty and honour, and an extraordinary capacity for forgiveness. Despite the gruesome exactions perpetrated upon his people by generations of white and mulatto slave-owners, he genuinely believed that a multi-racial Republic could be created in Saint-Domingue, in which all citizens lived on an equal footing. European imperialism might have taken a very different path had his humane vision (‘doucement allé loin’, as he used to say) been allowed to flourish.

‘Toussaint Louverture was a shooting star in the tropical firmament: a charismatic ruler full of pride, energy, and playfulness’

The Black Spartacus will be published by Allen Lane in spring 2020.

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Atmospheric turbulence is the leading cause of injuries to air travellers and flight attendants. Rough air costs the global aviation sector around 1 billion dollars annually, and climate change is causing it to strengthen. For all these reasons, improving turbulence forecasting is essential to the comfort and safety of air travel passengers.

While studying at Balliol for my DPhil in the Department of Physics, I worked on a physical theory for the generation of gravity waves in the atmosphere. Realising that these waves can produce clear-air turbulence, which is hazardous to aviation because it is invisible and currently undetectable, I set out to develop the theory into a practical turbulence-forecasting algorithm. I achieved this by collaborating with John Knox (University of Georgia, USA) and Don McCann (McCann Aviation Weather Research, Inc., USA). Our forecasting method works by analysing the atmosphere and using a set of equations to identify the regions where the winds are becoming unbalanced and unstable, which leads to the production of turbulence.

After I left Balliol to take up my academic post at the University of Reading, we conducted some initial tests on the accuracy of our forecasting algorithm, with promising results. At that time, the US Federal Government’s goals for aviation turbulence forecasting were not being achieved, either by automated systems or by experienced human forecasters, but our algorithm came tantalisingly close. We published our results, concluding that ‘major improvements in clear-air turbulence forecasting could result if the methods presented herein become operational’.

Rough air has long plagued the global aviation sector. Tens of thousands of aircraft annually encounter turbulence strong enough to throw unsecured objects and people around inside the cabin. On scheduled commercial flights involving large airliners, official statistics indicate that several hundred passengers and flight attendants are injured every year, but we know that the real injury rate is probably in the thousands. A typical airline loses 7,000 working days annually because of flight attendants being injured by turbulence and unable to work. On smaller planes, turbulence causes around 40 fatalities each year in the USA alone.

At its worst, turbulence can cause structural damage to aircraft. For example, a plane flying over Colorado on 9 December 1992 encountered extreme turbulence, which tore off
fuel consumption and CO₂ emissions. The environment, by causing excessive turbulence can be extremely distressing, but most non-sufferers also find it generally unpleasant and uncomfortable to be randomly buffeted up and down. Turbulence also has consequences for the environment, by causing excessive fuel consumption and CO₂ emissions. Up to two-thirds of flights deviate from the most fuel-efficient altitude because of turbulence. This wastes fuel – up to 160 million gallons annually in the USA; it also contributes to climate change, through 1.5 million tonnes of unnecessary CO₂ emissions annually. At a time when we are all concerned about aviation’s carbon footprint, reducing turbulence encounters represents some seriously low-hanging fruit to help make flying greener.

Furthermore, climate change is expected to make turbulence much worse in future. In particular, our published projections indicate that there will be several hundred per cent more turbulence globally by 2050–2080. These findings, which have been cited by the Intergovernmental Panel on Climate Change (IPCC) and the United Nations Climate Change Newsgroup, underline the increasingly urgent need to develop better aviation turbulence-forecasting techniques.

The operational challenges associated with turbulence are compounded by the projected future growth of the aviation sector. Historically, global air traffic (measured in passenger-kilometres) has experienced an average long-term growth rate of 5 per cent per year, which corresponds to a doubling period of about 14 years. According to Boeing’s market outlook, this trend is expected to continue for at least the next 20 years. Accurate turbulence forecasts are needed to ensure the efficient use of airspace in our increasingly crowded skies. All other things being equal, future passenger growth coupled with climate change will lead to more turbulence encounters.

It is therefore excellent news for air travellers and the aviation sector alike that our improved turbulence-forecasting algorithm is now being used operationally by the Aviation Weather Center (AWC) in the National Weather Service (NWS), which is the US equivalent of the Met Office. The United States was a natural place to test and roll out the algorithm, because it has arguably the most extensive air transportation network in the world. It comprises 5.3 million square miles of domestic airspace and 20,000 airports. There are 5,000 aircraft airborne at any given time, controlled by 14,000 air-traffic controllers. On an average day in the US, 2.6 million people fly on a scheduled passenger service.

The turbulence forecasts are freely available via an official US government website (www.aviationweather.gov/turbulence/gtg). The forecasts cover all 48 contiguous US states, plus much of Canada and Mexico and parts of the Pacific and Atlantic Oceans. They forecast turbulence up to 18 hours ahead, updated hourly. Our algorithm has improved the final published forecast. Every day since 20 October 2015, turbulence forecasts made with our algorithm have been used in flight planning by commercial and private pilots, flight dispatchers, and air-traffic controllers. They are benefiting from advance knowledge of the locations of turbulence, with greater accuracy than ever before, allowing flight routes through smooth air to be planned. Pilots and air-traffic controllers are benefiting from a reduced workload, because unexpected turbulence results in burdensome re-routing requests. Airlines are benefiting from fewer unplanned diversions around turbulence, reduced fuel costs and emissions associated with those diversions, fewer delayed arrivals, fewer flight attendants unable to work due to turbulence-related injuries, and a reduced maintenance schedule for their aircraft. To date, our algorithm has improved the comfort and safety of air travel on up to 2.5 billion passenger journeys.

Our algorithm has won several awards recently, but the real prize is the knowledge that it is making a difference to people’s lives every day. In the time it has taken you to read this article, thousands of passengers have taken to the skies and are benefiting from our research, and nothing can beat that feeling. It is the perfect and somewhat unexpected culmination of a DPhil research project that began in earnest at Balliol 20 years ago.

Paul Williams is Professor of Atmospheric Science in the Department of Meteorology at the University of Reading.

‘Every day, pilots, flight dispatchers, and air-traffic controllers are benefiting from advance knowledge of the locations of turbulence, with greater accuracy than ever before’
Anthony Kenny attributes the interest of his life to ‘the variety of people I have been lucky enough to know and work with’. Here are accounts of his interactions with 60 of them. Dons and philosophers, priests and cardinals, businessmen and benefactors, statesmen and heads of state, novelists and scientists: his subjects are indeed various, Balliol figures among them including Russell Meiggs, Richard Cobb, Christopher Hill, Harold Macmillan, Ted Heath, Denis Healey, Roy Jenkins, King Olav V, Boris Johnson, Yvette Cooper and Graham Greene.

‘As a painter of biographical portraits Anthony Kenny excels as a brilliant miniaturist. This is a marvellously stimulating way to approach autobiography. The range of his friendships and acquaintances is immense.’ Peter Hennessy

The Voices of Nîmes: Women, Sex, and Marriage in Reformation Languedoc
OUP, 2019

French women of the 16th- and 17th-centuries of the lower levels of society left no letters or diaries; nor did criminal and ecclesiastical courts keep many records of them. But by using the evidence of 1,200 cases brought before the consistories – or moral courts – of the Huguenot church of Languedoc between 1561 and 1615 Suzannah Lipscomb accesses ordinary French women’s everyday lives: their speech, their behaviour, and their attitudes relating to love, faith, and marriage, as well as friendship and sex. She also provides evidence that women then were more publicly powerful than has been previously believed.

David Gilmour (1971)
The British in India: Three Centuries of Ambition and Experience
Allen Lane, 2018

This book explores the lives of the many different sorts of Briton who went to India over three and a half centuries: viceroys and officials, soldiers and missionaries, planters and foresters, merchants, engineers, teachers and doctors. Drawing on decades of research, David Gilmour evokes their ambitions and experiences, together with the lives of their families, recording the diversity of their work and their leisure, and the complexity of their relationships with the peoples of India, to create a tapestry of British life in India.

‘Brimming with colourful details, his book has no time for academic jargon or pretentious theorising … Gilmour is interested in human complexity, not in moralistic posturing.’ Dominic Sandbrook (1993), Sunday Times

Oswyn Murray (Emeritus Fellow), ed. Vanessa Cazzato
The Symposion: Drinking Greek Style
OUP, 2018

Symposium is the Greek word for ‘drinking together’ – the social institution of reclining on couches and enjoying the pleasures of wine, sex, and song. The Greeks turned the rituals of communal drinking into a way of life entirely their own, and the symposion became a focal point of Greek aristocratic art and culture in the archaic age. This volume gathers Oswyn Murray’s essays on sympotic subjects, which together chart 30 years of thought on a theme on which he has had a shaping influence.
Stephen Moss (1975)
*The Rookie: An Odyssey through Chess (and Life)*
Wisden, 2016

In 64 chapters Stephen Moss journeys through the world of chess, exploring its history, meeting club players and world champions, playing in tournaments, and endeavouring to become a better player himself. ‘Stephen Moss’s highly readable book, The Rookie, is a brilliant account of the emotional roller coaster of an average club player trying to become seriously strong … Recommended.’ Leonard Barden (1949)

Brian McGuinness (ed.) (1945), translated by Peter Winslow
*Wittgenstein’s Family Letters*  
Bloomsbury, 2019

Professor Brian McGuinness has edited and introduces this volume of the correspondence between the Austrian–British philosopher Ludwig Wittgenstein and members of his family. Written over 40 years and published in English for the first time, the letters reveal an intimate side of the philosopher, shedding light on his cultural background (rich especially in music) and on his ideas and relationships during his time as a prisoner of war, school teacher and architect, and throughout his years at Cambridge.

‘There are not many families of the twentieth century as fascinating as the Wittgensteins. This is a valuable and often moving collection. The letters reveal how tight the bonds between family members were – but they also expose the tensions that led ultimately to an irreparable split.’ David Edmonds, co-author of Wittgenstein’s *Poker*

Thomas Maloney (1999)
*Learning to Die*
Scribe, 2018

Thomas Maloney’s second novel follows five connected and very different characters as, on reaching the age of 30, they each confront the painful truth of the passage of time and that they will inevitably die, but, in doing so, also learn how to live. ‘A crisply written and ferociously intelligent account of a disparate group of thirtysomethings trying to make sense of the world they inhabit, and a welcome reminder that the English novel — as opposed to all the other kinds clamouring for our attention — is alive and well.’ Julie Myerson

Terrell Carver (1968)
*Marx*
Polity Press, 2018

Professor Terrell Carver presents here ‘another Marx’, explaining: ‘This book is neither a biography (of an intellectual who thought great thoughts) nor a textbook (what you need to know to be an intellectual). It is rather a set of essays on topics to think about when reading Marx, dipping into the vast oeuvre, but not always finding the familiar texts and usual angles … If this approach works, I will have shown something about how and why Marx was thinking about things that interest us vitally today, but not in the way that most “Marxes” have been constructed to speak to various reading publics.’

‘Full of insight and enthusiasm, Terrell Carver’s provocative new book gives us a welcome portrait of Marx as very much our contemporary — a political activist grappling with issues that still concern us, in ways we can still learn from.’ David Leopold, University of Oxford

Sarah Loving (1980), writing as S. L. Powell
*Visible Ink*
Curlicue Books, 2018

S.L. Powell’s second children’s novel, aimed at 8–11-year-olds, explores bullying: not the bully at the school gates stealing your dinner money but the more subtle matter of being bullied by a friend. Two boys have been friends since babyhood but one is bullying the other. A magic pen that writes the truth, even when you don’t want it to, allows the boys to explore, understand and resolve the difficulties of their relationship, learning that it’s OK to be the person you are and not the person others expect you to be.

Martin Edwards (1974)
*Gallows Court*
Head of Zeus, 2018

As well as many award-winning crime novels, short stories and crime anthologies, Martin Edwards has written books about the history of crime fiction, including a study of the genre between the wars. Now he draws on that ‘Golden Age of Murder’ himself with a novel set in 1930s London, where a sequence of violent murders has unfolded across the city. On the trail of the killer is amateur sleuth Rachel Savernake, the enigmatic daughter of a notorious hanging judge. But Jacob Flint, a young journalist eager for a scoop, becomes convinced that there’s more to the ruthless Rachel than meets the eye and determines to find her secret.

‘A dark, stylish crime thriller set in 1930s London … a subversive twist on the genre … Ingenious and pacy, Gallows Court keeps you guessing right to the end.’ The Times
The Fremantle Murals

John Jones (1961 and Emeritus Fellow) rejoices in the restoration of murals depicting the legend of the College’s foundation

When I moved into room II.5 around forty years ago, the murals by Christopher Fremantle (1925) that cover all the walls in the anteroom were in a sorry state. The wallpaper which had been slapped on top of them in the distant past had mostly been peeled away, but this had not been done without damage, and had exposed screw holes. There were cracks in the plaster and paint-flaking.

For the next twenty or so years, the murals were largely obscured by my clutter and shelving. My visitors were often curious, but I was not able to tell them much, as I had taken little interest in them. Initially I had supposed in error that they were an amateur effort following Gilbert Spencer’s murals in Holywell Manor.

Then, around 1990, there were separate visits from Hugh and Richard Fremantle, sons of the artist, which opened my eyes to the multifaceted interest and significance of the work, which is based on the legend of the College’s foundation. I used the buxom Britannia-like representation of Dervorguilla (opposite) in the second edition of the College history. It was clear to me that the murals were in need of expert conservation work: but it was equally clear to me that this would be enormously expensive, and I had more urgent archive conservation issues on my plate.

But five years into my notional retirement, Hugh Fremantle contacted Sir Drummond Bone, enquiring about the possibility of conservation and long-term preservation for his father’s murals, with which he would be ready to assist. To my great pleasure the Master passed the matter to me.

‘The College is very grateful to Hugh Fremantle for his generosity in enabling his father’s murals to be restored’
I obtained a detailed report from the International Fine Art Conservation Studios in Bristol (IFACS). IFACS had recently done wonderfully successful work on the painted ceilings and Chancel mural of St Cross Church, now the College’s Historic Collections Centre. IFACS recommended urgent work on the murals to arrest deterioration, followed by attention to the worst cracks etc., and finally full restoration. All this has been carried out by IFACS in three phases during Long Vacation sessions in 2015, 2016, and 2017, all enabled by Hugh. The results are better than I had thought possible.

The murals show three scenes, clockwise round the room, starting left of the entrance door: John Balliol receiving absolution, coupled with the imposed penance of supporting poor students at Oxford, from the Bishop of Durham (left); St Catherine of Alexandria inspiring Dervorguilla, Lady of Balliol, at prayer to consolidate her husband’s foundation; and Dervorguilla giving Statutes to her Franciscan agent Brother Hugh of Hartlepool (below right).

The Fremantle descendants of Thomas Francis Fremantle, 1st Baron Cottesloe, are a Balliol dynasty. Christopher Fremantle’s father, paternal grandfather, three paternal uncles, and two cousins all preceded him at Balliol, and a son, grandson, and three cousins followed him in the College.

Christopher Fremantle read History at Balliol 1925–1929 and then studied at the Royal College of Art. In 1930 he married Anne Marie Huth Jackson, whose father, brother, three uncles, and maternal grandfather had all been at Balliol. It is no surprise to read in her autobiography (Three-Cornered Heart, 1971) that Christopher and Anne Fremantle were married by Archbishop Lang (1882 and Honorary Fellow) and received a generous wedding present from F.F. Urquhart (1890, Dean, usually known as ‘Sligger’), who had taught both of them: he did not normally take female pupils but made an exception for Anne because her mother was a friend of his sister Lady Tyrell (who was married to Lord Tyrell of Avon, 1885 and Honorary Fellow). To this privileged circle, Balliol was a part of family routine, and no doubt advantage was allowed at admission, but there is no evidence that any duds were admitted by honouring the family tradition.

In 1933 Christopher Fremantle was invited to paint murals in the rooms of Roger Mynors (1922, Fellow and Honorary Fellow). Mynors and Fremantle knew each other well: they had been simultaneous guests at Sligger’s Chalet near Mont Blanc four times. So Christopher and Anne Fremantle took up residence in Oxford for a while in 1933. The date is important because the more famous murals in Holywell Manor by Gilbert Spencer were painted in 1934, after Fremantle’s.

Both the Fremantle and Spencer murals have phases of the legend of the foundation of the College as themes, but they are very different, not copies one of the other; and only Fremantle’s allude to the one clearly documented historical fact: that Dervorguilla, inspired in part by the cult of St Catherine of Alexandria, gave the College its first Statutes.

The heads of the characters who appear in Fremantle’s murals are in two cases portraits of significant real people: St Catherine is Fremantle’s wife Anne, and Dervorguilla is his sister Margaret, who was a key figure in Howard Florey’s penicillin team and married him as his second wife. The young man with greyhounds is Christopher Fremantle himself, and the monks are probably Balliol dons of his time.

The College is very grateful to Hugh Fremantle for his generosity in enabling his father’s intriguing murals to be restored.
Behind the scenes at a Gaudy

Preparation and attention to detail are key to giving alumni a perfect evening, explains Greg Butler (Front of House Manager).

Any large dinner or event needs a certain amount of planning and preparation, but a big College occasion such as a Gaudy needs a fair bit of extra effort behind the scenes to get everything just right. Balliol’s Front of House and Kitchen teams work closely together to ensure that every Balliol Old Member returning with their matriculation year for the dinner feels well looked after.

My role as Front of House Manager means that my team and I are the ones serving the food and wine in Hall. However, making an event run smoothly involves a lot more than just this: not only do we have all the preparation to do beforehand, but we have to be ready for anything. In the past we have had fire alarms going off during dinner, pitch darkness due to power cuts, guests needing to be rushed to hospital and even the microphone picking up local taxi radios during the Master’s speech. Whatever happens, the show must go on, and that’s where the real skill lies.

Down below Hall in the Kitchen, food preparation may begin five days in advance, the timing depending on the menu that Bertrand Faucheux (Executive Head Chef) has decided on. Bertrand takes a great deal of pride in the standard of food that Balliol offers, and as much of the food as possible is made at Balliol; the Kitchen make their own ice cream, for instance, or do their own pickling and smoking if such items are on the menu. In the weeks leading up to a Gaudy I discuss the wine choices with Bertrand and the Butterty Manager, David Barker, and between us we ensure that the wine arrives in sufficient quantities and in time to be chilled to the correct temperature.

Staffing needs to be organised about 10 days before an event, and for a sizeable Gaudy this means several different shifts in both the Kitchen and Front of House.

‘Whatever happens, the show must go on, and that’s where the real skill lies’

On the day of the Gaudy, the Front of House staff on the morning shift spend up to eight hours getting the Hall ready for the evening, starting with a deep clean of the Hall. Then they set up the tables. Sometimes this involves moving quite a lot of furniture, including the 19th-century oak benches and tables which were not built light or designed to be easy to carry up and down stairs.

For most College events the College silver is on display. If the Hall is full, we use around 50 pieces of silver, all donated by alumni or former Fellows. These need to be cleaned meticulously beforehand, and because of the age, value and intricacy of some pieces this can take several days.

After the tables have been set, one of the Hall Supervisors checks each setting for missing items, and the cutlery and glassware for fingerprints. Throughout the morning the Development Office are in constant contact, updating the table plan and dietary information as necessary.

At around 4.00pm the morning shift finishes and staff on the evening shift take over. In Front of House we have 11 full-time staff and up to 20 part-time or casual staff who support them. For a full Gaudy with 226 guests we aim to have at least 12 staff looking after them during the evening, which means that altogether almost two-thirds of the whole team are needed for this one event.

Some of the evening team set up the drinks reception that precedes the Gaudy; the rest stay in Hall and get the last things ready for service. Fifteen minutes before dinner, either I or one of the supervisors has a discreet word with the Master to check that she is ready for the dinner gong to be rung.

Once everyone has made their way to their places in Hall, another nod informs the Master that she can hang the gavel and say grace. The staff will be poised behind the doors waiting for this moment, and as soon as the Master has finished and guests begin to sit, the staff appear with the wine for the first course.

By this time the chefs are all upstairs in the servery, plating up the starters and ensuring that every plate is finished to a high and uniform standard. Once the starters are ready, the waiting
This gilt bowl was presented by Jon Moynihan (1967) in 2008, to commemorate his chairmanship of the College’s Campaign Board. The tortoise underneath commemorates Balliol’s history of College tortoises. Popular with Fellows new and old, the piece is a regular on High Table during College dinners.

staff serve them, table by table. Anyone with a special diet such as gluten free or vegan is looked after by an individual chef and two waiting staff. The ideal is to serve each course as quickly as possible without compromising presentation – on a good day we can serve 226 starters in 10 minutes.

As the dinner progresses, the waiting staff make sure that no one has an empty wine glass or water jug, constantly scanning the room for anyone who is trying to catch a waiter’s eye. The ability to pay attention to detail is one of the best attributes in any Front of House staff, and I am lucky to have such a good team who all have this to a high degree.

Once dessert has been served the team relax slightly; a big part of the evening is done. Coffee is served, and then before her speech the Master has a nice tradition of thanking the staff. During the speech the staff have a quick break before returning upstairs and starting the clean-up operation as guests begin to depart. Everything must be done before the end of the shift: all 900+ glasses washed and polished, cutlery and crockery washed and sorted, linens collected and sent to the laundry, silver counted and returned to the safe, and all the furniture put back for breakfast in the morning.

At around 1.30am the Hall keys are returned to the Lodge for the morning shift to pick up at breakfast time, ready to go again.
Richard Goldsbrough (2017) celebrates the military career of Sir Edgar (Bill) Williams (Fellow 1945–1980)

Sir Edgar Williams, or Bill to his friends, was a Fellow of Balliol 1945–1980 and Emeritus Fellow 1980–1995. Although I never met him, he is of great interest to me, as I have four connections to him: college, subject, regiment and employer. His subject was history, as mine is. His regiment, in which he served in the Second World War, was, like mine, the senior cavalry regiment of the line. In his time its title was 1st The King’s Dragoon Guards or KDG. By the time I joined the British Army in 1985 the regiment had changed its name to 1st The Queen’s Dragoon Guards or QDG, to reflect the KDG’s amalgamation with the Queen’s Bays in 1959. And after teaching history at Balliol 1947–1952, Williams was Warden of Rhodes House and Secretary of the Rhodes Trust – an organisation for which I now work for one day a week.

Williams was a remarkable man for many reasons. Acknowledged to have been a brilliant young historian, he was associated with the University of Oxford from 1931, when he entered Merton College as Chambers postmaster, until his death in 1995. As well as teaching and running the Rhodes Scholarships programme, he served for many years as a Pro-Vice-Chancellor of the University, and he was the editor of the Dictionary of National Biography 1949–1980. Away from the University, his public service included being Secretary for Enforcement Measures at the newfound United Nations 1946–1947. However, it is Williams as a soldier that most fascinates me.

He was the first man to report the arrival of German forces in North Africa in February 1941 – a considerable, if largely fortuitous, achievement for the reconnaissance troop leader that he was. His military career was also notable for his role as chief intelligence officer of Field Marshal Montgomery (‘Monty’), particularly at the Battle of El Alamein in October–November 1942 and in the D-Day landings in June 1944.

In June 1939, anticipating the war with Nazi Germany, Williams joined the KDG as a supplementary officer. The choice of a pre-war cavalry regiment by an intellectual who, while a good games player, could not ride a horse or drive a car and was not notably practical, may appear a strange one. He himself claimed that he joined a mechanised regiment because he foresaw that the war would begin with a British retreat, as the last war had done, and he preferred to retreat in a vehicle, rather than on foot. In the event, he was not deployed...
abroad until the beginning of 1941, when, as a lieutenant and troop leader in charge of four Marmon-Herrington scout cars, he took part in the Allied advance out of Egypt, pushing their Italian foes west of Benghazi.

On 20 February 1941, Williams’ troop, which was part of C Squadron and one of the furthest forward KDG units, was on reconnaissance patrol in the region of El Aghelia (now al- ’Uqaylah) in Libya. Up to this point, while the arrival of German forces in North Africa had been anticipated, no sign of them had been detected. However, on this patrol, Williams saw an armoured car blocking his route on the track in front of him. He then noticed it had eight wheels, which ruled it out as being a friendly vehicle, and when he saw the unmistakable Balkenkreuz emblazoned on its hull, he knew it was German. At that moment both armoured cars opened up on each other with their machine guns. The only victim was Williams’ bedding roll. This was the first action between the British and the Germans in North Africa. Initially Williams’ contact report was treated with incredulity, but doubts over his observations evaporated the following day when the KDG suffered several attacks by German Messerschmitt 110s.

The Germans pushed the Allies east to the city of Tobruk. Here the KDG left their armoured cars and acted as infantry to defend the perimeter. Williams was then appointed as a liaison officer to the divisional headquarters. On his first visit to the dark caves that housed the Australian senior staff officers he shouted out, ‘L.O. from the KDG,’ to which he was greeted in broad antipodean, ‘KDG, what mob are they?’ The historian in Williams briskly retorted, ‘The King’s Dragoon Guards, sir, formed in 1685, some years before Captain Cook set sail for Australia.’ Several months later the young officer was told that the man he had addressed was the garrison commander, General Morshead.

Williams suffered from weak eyesight, which was exacerbated by the glare of the desert sun. As a result, he was sent back to Cairo for treatment and recuperation. While there, he was given office work in the intelligence department of the headquarters of the British Army. Recognising Williams’ ability, the Senior Intelligence Officer, Freddie de Guingand, asked him to join his staff. Henceforth, Williams rose rapidly, moving from lieutenant to brigadier (at the age of 32) in just three years. This promotion reflected the excellent intelligence work he carried out in helping Montgomery (commander of the British Eighth Army in the Western Desert from August 1942) plan and execute his battles, especially that of El Alamein in October and November 1942. From that battle onwards, Williams was rarely far from Montgomery’s side.

Once Allied victory in North Africa had been achieved, Williams remained with Montgomery during the Sicily campaign and for the initial Allied push into Italy. At the end of 1943, Montgomery was posted back to the UK to command the 21st Army Group, which comprised the Allied units that were to take part in Operation Overlord, the codename for the D-Day landings the following year. Williams returned with Montgomery, who situated his headquarters in the buildings of his old school, St Paul’s, in London. It was from here that Williams worked on the German troop dispositions in France and how they would be likely to react to an Allied invasion based on different locations. It has been reported that, with only a few exceptions, Williams accurately accounted for all the German units that were to face the Allies who landed on D-Day. Montgomery’s eventual success was, therefore, based to a large extent on his head of intelligence’s accurate assessment of the enemy’s dispositions. Williams remained with Montgomery until the end of the war and served with the British Army of the Rhine in Berlin in 1945, where he met his future wife, Gillian Gambier-Parry. He left the British Army in 1946.

What made him a great intelligence officer? I think it was his scholarly ability to absorb a mass of material and make sense of it, combined to an unusual degree with a realistic appreciation, as one who had served on the front line, of the need to do this within the constraints of real time if it was to make a difference. Montgomery himself said of Williams in his memoirs: ‘He was the main source of inspiration; intellectually, he was far superior to myself or anyone on my staff but he never gave that impression. He saw the enemy picture whole and true; he could sift a mass of information and deduce the right answer … The best officers in the Intelligence Branch of the staff were civilians … and Bill Williams stood out supreme among them all.’

The Oxford don who was the brains behind Field Marshal Montgomery’s pivotal successes at El Alamein and on D-Day which changed the course of the Second World War: Williams (left) with Montgomery (right).
In an anniversary sermon, Revd Stephen Tucker (Emeritus Fellow, New College) considers why reading parties at the Chalet des Anglais continue after more than 100 years.

Why has the Chalet tradition survived?

Today is a day on which we might find ourselves wondering why the Chalet as an institution has survived. Why are students from Balliol, New College and Univ still going to the place to which ‘Sligger’ – aka Francis Fortescue Urquhart (1890 and Fellow 1896–1934) – first invited them in 1891, and why are they still leading the pattern of life he set down?

Of course the spirit of place has much to do with it. In Sligger’s day, Chaletites walked up to the Chalet des Anglais in the French Alps from St Gervais. Initially they saw only that gentler side of the mountain. If the weather is good we arrive at the Chalet, having already seen from the Prarion the grand glacial strength of ‘the snow mountains’.1 Then, having crossed the Jaxartes, we find the Chalet fitting snugly on its small plateau. And soon we hope we will also see again from the lawn what Sligger called ‘that incomparable view – more human than the snow mountains’.2 When some of the trees have been felled there will be revealed again the view of the Aravis ridge in which the Perfect Chaletite (PC) was instructed to find as many faces as he could after sunset.2 The spirit of place is here more personal than in the ice-bound heights.

And the spirit of place extends to the building itself: the colour of the wood, the views from the balcony, the staircase on which the PC will bump his or her head only once, and the simple elegance of the salon – that is, when it has been prevented from looking like a cricket pavilion.

Yet as Sligger said in 1906, ‘The chalet is not merely a house it’s an institution’ (which continues even when burnt down).3 And Sligger shaped that institution by establishing a tradition, which is still a distinctive aspect of our experience of the Chalet. The silent morning for study, walks and recreation in the afternoon, and the evening meal where now the Chaletites take it in turn to feed each other. The study is mostly done corporately, sitting silently together reading and in the mid-morning, drinking coffee and eating ‘a limited amount of chocolate’. The walks create their own atmosphere when the Chaletite discovers what Sligger always called ‘la paix de la grand nature’, together with the sense of community which such walks engender. Recreation is less serious – or at least it used to be in the days when Chalet tennis and Chalet cricket were played, when half the enjoyment of the latter involved inventing the teams. And every Chaletite will have his or her own special memories of the evening meal: both the disasters and the triumphs and the conversations which accompanied them.

I think Sligger’s character also contributes something to the durability of life at the Chalet, with its quasi-religious pattern of silence, study, recreation, mutual support, and the common table. So what was Sligger like?

Francis Fortescue Urquhart was the first Roman Catholic to hold a Tutorial Fellowship in Oxford since the Reformation. Contrary to expectation in some quarters, he did not seek to convert people. He was an active member of the Newman Society for...
Catholic students and he welcomed converts warmly. As Ronnie Knox put it, 'To be welcomed by Sligger when you were received into the Church, was as if a man, going to stay in a strange house, not devoid of terrors, should find his own armchair transported there to await him.' That was true perhaps because Sligger believed that the different branches of Christianity still meet ‘at the root of things and I hope at the seeds too’. He would not, I think, be displeased by the fact that over the last 50 years in all the three colleges which take reading parties to the Chalet the Chaplains have played a significant role in maintaining the Chalet tradition.

We might think his love of nature in all its detail was a little Franciscan. However, his funeral mass took place at St Aloysius, in the Woodstock Road, and he had friends in the congregation there. St Aloysius is the home of the Oxford Oratorians, the community Newman brought to Birmingham from Rome. The Oratorians lived then as a group of priest companions in a community that was more of a home. Its founder in the 16th century was St Philip Neri, whom Newman describes as having a hatred of humbug, playfulness, nay oddity, tender love for others and severity. And that in some ways is resonant of aspects of Sligger’s personality. He disliked arguments and showing off, and preferred an atmosphere of natural and easy enjoyment. It is notable that the Perfect Chaletite is told he will sometimes have some very good talks at the Chalet; but for Sligger talk didn’t have to be very good all of the time. He gave much room for the silliness of the young. His rooms in College provided a home from home.

Students said of him that he could see through their faults, follies and pretensions but believed in them and liked them all the same. The Abbé Klein said of him that he was ‘cultivated, modest, with a heart loving yet reserved, austere to himself yet making life agreeable to others’. Like Newman, Sligger kept many photographs of his friends and kept all their letters, which he still took delight in reading at the end of his life. Though in College and on his Chalet parties he was aware that he had a reputation for entertaining only rising or risen men, and he felt that he had done little for the underdog, he would often include the odd and the lonely and try to help them to fit in. As one former student put it, ‘He brought about subtle changes in people’s characters almost telepathically.’ And again from a junior colleague, ‘He was an ascetic who was not afraid of enjoying himself; his idea of duty, stern as it was, included the duty of making the best of a fine day… It was his humility which gave him his great quality of calmness and serenity.’

Modern historians may look askance at Sligger’s relationships with his students: the Oxford of his day was in part the world of Brideshead Revisited, which if anything was an understatement of the undergraduate life of men like Harold Acton, Cyril Connolly and Evelyn Waugh. And yet, as many contributors to Cyril Bailey’s biography show, while Sligger’s affections were strong they were also strongly controlled. He might, if he knew the writings of St Aelred of Riveaulx, have approved of Aelred’s rewriting of St John: ‘God is friendship and those who live in friendship live in God and God lives in them.’

Sligger died on 18 September 1934. In his address in Balliol Chapel at the beginning of that Michaelmas Term, the Master, Alexander Lindsay, said, ‘There is a … text in St Paul’s Epistle to the Ephesians which makes me think of Urquhart – “That Christ may dwell in your hearts by faith, that ye being rooted and grounded in love…” Christ dwelt in his heart by faith, and he was rooted and grounded in love.’

And perhaps the durability of the Chalet ultimately depends on it too being rooted and grounded in love.

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1-5, 7-11 Cyril Bailey, Francis Fortescue Urquhart: A Memoir (1936)

This article is an edited version of an address given in Balliol College Chapel on 9 September 2018 at a Thanksgiving Service for Sligger (Francis Fortescue Urquhart – 1890 and Fellow 1896–1934) and the Chalet des Anglais on the 150th anniversary of Sligger’s birth. The service was held jointly by Balliol, New College and University College, the three colleges who share use of the Chalet.
Some Balliol chess greats

A miscellany of facts about some Balliol people who have excelled at chess, in the Oxford University Chess Club (celebrating its 150th anniversary in 2019) and beyond

H.J.R. Murray (1887)
Chess historian and author of the 900-page History of Chess (OUP, 1913), which – on his death in 1955 – an obituary in the British Chess Magazine described as ‘an enduring monument, the greatest book ever written on the game’.

Sir Theodore (Theo) Tylor (1918, Fellow and Tutor in Jurisprudence 1927–1967)

James Macrae Aitken (1931)
Ten-time Scottish champion, the last win in 1965 being shared. Represented Scotland in four Chess Olympiads. Competed in four Varsity matches and many British championships. Represented Great Britain in the radio match against the Soviet Union in 1946, and in the over-the-board meeting between the two countries in 1947. During the Second World War he worked as part of the group of codebreakers at Bletchley Park and played in the match between Oxford University Chess Club and Bletchley Chess Club on 2 December 1944, as did Tylor.

Donald Michie (1942)
Also worked at Bletchley Park, where he played Alan Turing at chess, before returning to Balliol in 1946. One of the founding fathers of British Artificial Intelligence (AI) and a champion of machine chess. ‘Michie was one of the three AI professors … who bet David Levy, then a Scottish international master, £1,000 in 1968 that a machine would beat Levy within ten years. Levy won but then they bet him again over another five years, and he won a second time in 1984. In the end research stamina prevailed, and Kasparov was beaten by IBM’s Deep Blue in 1997.’ (Yorick Wilks, Senior Research Fellow at the Oxford Internet Institute, Balliol College Annual Record 2010.)

Michie attended the Second Conference on Computer Chess held at Balliol in 1975.

Leonard Barden (1949)

Raphael Persitz (1953)
Israeli Junior Champion 1951. Played three times for England in the World Student Team Chess Championship: 1954, 1956 and 1957, winning an individual gold medal at Oslo 1954. Represented Oxford in the Varsity match 1954, 1955 and 1956 – in 1954 playing and winning his individual game in the Varsity match very quickly in the morning, in order to travel by train to Swindon in time to play top board for Oxfordshire against Gloucestershire in the afternoon. He was paired against a former British champion, Hugh Alexander (who also worked with Turing at Bletchley Park and was by then head of codebreaking at GCHQ), and managed to win this game as well. Played for Israel at fourth board in the 14th Chess Olympiad at Leipzig 1960. A prolific chess writer.

Michael Lipton (1957)

Peter Markland (1969)
Captain of the University Chess Club 1971. ICCF (International Correspondence Chess Federation) Grandmaster. Member of the England team at the Chess Olympiads 1972 and 1974.
Chess in the 1950s: Fred Fishburn (1951) remembers

One evening as I was standing in the coffee queue I heard Len Barden [1949], one of the leading English chess players, and still the chess correspondent of the Financial Times, discussing chess matters with John Sykes [1947], who later became the crossword editor of the Times, and himself no mean player. I mentioned that I had played a little chess for, among others, Middlesbrough Chess Club in the North Yorkshire and South Durham League, and Yorkshire County in postal games, and that I had had some success at club and these levels. Len suggested we might have a game, then and there. Chess was commonly played in the JCR and there were plenty of sets available. We found the nearest thing to a quiet corner, and started the game. We were soon surrounded, and I felt very nervous and sorry that I had opened my big mouth. However, I began to recover my confidence and to my surprise as well as that of most of the onlookers, I managed to hold Leonard to a draw. On the strength of that I was chosen to play at fourth board for the college, which I felt was not bad, as the first three boards were Leonard, Raphael Persitz, the Israel National Junior Champion, and John Sykes. I played chess regularly for the college after that with a fair measure of success. Our highlight was when the Balliol A team (the first three boards) met the Balliol B team the next three boards, of which I was the first, in the Chess Cuppers (the university chess competition). We drew all three games. […]

Theodore Tylor – many years later to be knighted, the Law tutor and Balliol College bursar, was one of the most remarkable personalities not only in Balliol but in legal academia generally. He was effectively blind, with perhaps five per cent vision. He had attended the Worcester College for the Blind of which, in due course, he was to become the president. He had a frighteningly comprehensive knowledge of all branches of law. […] He was also an excellent chess player, and seemed able to recall all the games he had played. When I arrived for a tutorial he would say: ‘Ah, Fishburn (no first names with him), you will be interested by a game I had last Saturday. I was black and my opponent opened with a Queen’s Gambit which I declined and the game developed …’ He would then go through the whole game at breakneck speed, explaining finally the intricacy of the ending, in which he had captured the White Queen with a fork, or some similar coup, ending up: ‘What do you think of that, eh?’ I had lost him at move three.

The pattern of work in the digital-robotic future will be transformed. We will need to navigate through new economic models, systems and processes. Knowledge and expertise will be less important than the ability to adapt continually to new conditions. Those with the ability to master a domain will be the most sought after. Multi-careered workers will need to think critically, solve problems, recognise systems of cause and effect as well as have the confidence to communicate. Educational institutions, particularly schools, must respond accordingly.

Furthermore, international educationists have argued that children could get a lot more out of their school experience. The harsh focus on mathematics and English has failed to inspire the majority of children. The continual testing desolates what should be a fruitful period of their lives. The obsession with league tables and international PISA rankings distorts policy. Fortunately, there are countervailing currents from practitioners in those areas which have been squeezed out of the core curriculum: the arts, music, languages and sport. For example, the International Baccalaureate (originally devised by Alec Peterson, Balliol 1926) still requires its students to undertake ‘Creativity, Activity and Service’.

Schools could also do a lot more with games. Children derive intrinsic satisfaction and meaning from playing games. Many pupils’ brains have already been rewired since toddlerhood by constant exposure to digital devices. Playing games requires solving a series of problems, which reinforces their willingness to solve problems. What more fertile ground could there be to embed some other instructive material? Computer games are not so amenable to school instruction, but there is a game which fits the purpose.

Chess is a classic board game notable for its intellectual variety and depth. Empirical studies show that children who play this abstract strategy game improve their thinking, planning, and problem solving and also their overall academic performance. Hence over the last decade the international ‘scholastic chess’ movement has emerged.

Chess has evolved over a millennium and a half to match society’s requirements. What we typically associate with chess – chequered boards, long-range pieces and clocks – are historic artefacts. Chess is now seen not just as a
competitive board game: rather it is a domain in which the interaction of pieces, moves, and rules with subsets and variants give rise to intricate problem-solving challenges.

This insight has given rise to a search for exercises that lend themselves well to classroom instruction. For those who know how to play chess, miniature endgame studies, checkmates and proof games are particularly instructive. Ideas can be expressed in the purest form in scenarios with very few pieces or moves. For those who do not play chess, the most accessible approach is through mini-games comprising subsets of chess armies where even a simple objective, for example reaching the other side, can generate a strategically rich game. Strategy in this context means that one's best move is dependent upon the assumed response by the opponent.

The area in which I have been working is to develop a new category of ‘chess-maths’ exercises in which mathematical games and puzzles are represented in a chess format. The purpose is to insert logic and mathematics into situations where children are most receptive. As far as the children are concerned, they already play on the chessboard with pieces, so attempting some questions from a different perspective does not seem like crossing into the feared ‘maths lesson’ territory. Conversely some maths lessons may be enriched by such exercises without the need to be a chess player.

The quest has been to find instructive problems for children to solve using the chessboard and the pieces but – and here is the innovative part – these are not chess problems. We can say that they are playing maths on an 8 x 8 grid with pieces that have a variety of moves. My work forms the basis of the CHAMPS (Chess and Mathematics in Primary School) project, funded by Erasmus Plus. This is a pedagogical approach which touches on the fields of geometry, combinatorics, graph theory and game theory, and gives rise to enjoyable problems involving inter alia symmetry, polarity, tiling and binary multiplication.

Example. The ‘Two queens race’ game below is quick to play – and hence a disappointment to chess players – but the main point is to understand the winning strategy.

A crucial requirement is to ensure that the material can be understood not only by the children but also by their teachers. Teachers are naturally uncomfortable dealing with those activities in which the children outperform them. We address this by providing training and a teachers’ guide. What keeps me going is the belief that we have tapped into a rich vein which combines games, mathematics and children having fun.

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Sources for the research on which this article is based include Guus Geisen, Autopoiesis: A Perspective on Sustainable, Meaningful Education (DuurzaamDoor 2014); Pasi Sahlberg and Bill Doyle, Let the Children Play: Why More Play Will Save Our Schools and Help Children Thrive (OUP, 2019); and Giovanni Sala, John P. Foley and Fernand Gobet, ‘The Effects of Chess Instruction on Pupils’ Cognitive and Academic Skills: State of the Art and Theoretical Challenges’, Frontiers in Psychology (2017) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5322219/
Words are my health

Gwyneth Lewis (1985) offers a poet’s perspective on the restorative strength of accurate language

In my experience, few things in life are more challenging than navigating the isolation and uncertainty of graduate study, while having to construct a book-length argument, each sentence of which has to be defended. This is even more daunting if you experience mental illness during that period, as I did as a DPhil student at Oxford.

All good education should cause what feels like an intellectual nervous breakdown in the student. Otherwise, the institution isn’t doing its job of challenging them to abandon old ideas and to grow. For the vast majority of students, this is a benign crisis, somewhat stressful, but one which can nevertheless be negotiated. What you don’t want is an actual breakdown.

Due to poor life choices, addiction and a tendency to depression, I found myself, mid-thesis, in such emotional pain that I referred myself to the University Counselling service. There I was seen for four sessions by a perceptive woman in a sky-blue polo-neck sweater and we worked out the terms of my difficulties. However, this wasn’t enough and my GP referred me to the Warneford Hospital. There I was enrolled in group therapy, which I found exquisitely painful but which gave me the impetus to move out of the baffling and destructive situation in which I found myself.

When I returned to live in Wales, I was referred to a psychiatrist who was also a qualified psychotherapist, as rare as hens’ teeth. This was a piece of miraculous good luck,
‘Sometimes I feel that I leave my body so often while using my imagination that I’m in danger of never finding it again’

This shape-shifting shows how volatile a poet’s sense of self can be – sometimes I feel that I leave my body so often while using my imagination that I’m in danger of never finding it again.

Shortly before his untimely death, as his life became more chaotic and after his first prodigious years, Dylan Thomas was finding it increasingly difficult to write. We know that he was planning to write a long poem in the character of Taliesin. Notes he wrote before his death show that he was planning to adopt the persona of ‘the godhead, the author, the first cause, architect, lamp-lighter, the beginning word, the anthropomorphic brawler-out and black-baller, the quintessence, scapegoat, martyr, maker – He, on top of a hill in Heaven’. Thomas is more than a shape-shifter here: he was planning to speak as God himself – a risky position, especially when combined with a logocentric religious tradition and a word-based artistic genre.

It’s not difficult to see how not being able to write might drive one to despair, as it did Dostoevsky. I find that if I’m not writing, I inevitably fall ill. But don’t think for a second that the Muse is a compliant force. Here’s what I wrote in Sunbathing in the Rain: ‘Poetry has acquired a fluffy image, which is totally at odds with its real nature. It’s not pastel colours, but blood-red and black. If you don’t obey it as a force in your life, it will tear you to pieces.’

But I would suggest that this danger is mitigated by how the art turns us, inevitably, out from the self and towards communication with the rest of human society.

My case for the resilience of poets relies on a certain view of the collective nature of language. It’s not the creation of an individual ego but the result of centuries of disputation, conflict and reconciliation. When a poet speaks, every word she uses rings with the echo of that word placed in other poems by her forebears. For example, when I’m describing a bird, my ear’s memory also hears this medieval lyric:

As I went on a merry morning,
I heard a bird both weep and sing.
This was the tenor of her talking:
‘Timor mortis conturbat me.’

I asked that bird what she meant.
‘I am a musket’ both fair and gent;
For dread of death I am all shent:
Timor mortis conturbat me.

‘When I shall die, I know no day;
What country or place I cannot say;
Wherefore this song sing I may:
Timor mortis conturbat me …’

I was in many forms
Before my release:
I was a slim enchanted sword,
I believe in its play.
I was a drop in air,
The sparkling of stars,
A word inscribed,
A book in priest’s hands,
A lantern shining
For a year and a half.¹

¹ Taliesin, Cad Goddeu (‘The Battle of the Trees’), ll. 1–16

especialy as Dr Scorer was a serious reader of poetry. A compassionate individual, he took it upon himself to hold a conversation with me of a quality that enabled me to change the grammar of my life. It was a rescue from the dysfunctional monologue in my head, out into the sunlight of dialogue.

Much is made of the therapeutic properties of poetry these days, with arts organisations offering the habits of art – both for the reader and the practitioner – as a way of improving health outcomes. I believe passionately that the act of participating in good art is essential for personal and social wellbeing. I think of art as a vaccine that helps protect our collective immune systems from the worst that we can do, to ourselves and to others. What ties the art of poetry with the promotion of mental health is the commitment to conversation, rather than soliloquy. This exchange takes work and requires great precision of language.

But can poetry injure, as well as heal?²

Often, a writers’ work comes before his or her family, health, financial wellbeing, anything. This is because refusing the vocation feels more frightening to the artist than does material disaster. Dostoevsky spent four years in the gulag, where he wasn’t able to write. On his release, he was terrified that he wouldn’t be able to start again. In a letter to his brother he speculated: ‘How many forms, still alive and created by men anew, will perish, extinguished in my brain or dissolved like poison in my bloodstream. Yes, if it’s impossible to write I will die. Better fifteen years’ imprisonment with pen in hand!’ Notice here the image of poison in the blood. Not writing is here identified with the writer’s destruction.

In the last four years, I’ve been working with Rowan Williams on a translation of the Welsh Taliesin poetry into English. The historical Taliesin was a follower of several war lords during the sixth century. This Taliesin left wonderful poems evoking the glamour of warfare and material richness of court life. Later, medieval poets turned the actual poet Taliesin into a character in a myth and wrote poems which they ascribed to that character. That work can be very obscure, but it is gloriously imaginative. For example:

This shape-shifting shows how volatile a poet’s sense of self can be – sometimes I feel that I leave my body so often while using my imagination that I’m in danger of never finding it again.

Shortly before his untimely death, as his life became more chaotic and after his first prodigious years, Dylan Thomas was finding it increasingly difficult to write. We know that he was planning to write a long poem in the character of Taliesin. Notes he wrote before his death show that he was planning to adopt the persona of ‘the godhead, the author, the first cause, architect, lamp-lighter, the beginning word, the anthropomorphic brawler-out and black-baller, the quintessence, scapegoat, martyr, maker – He, on top of a hill in Heaven’. Thomas is more than a shape-shifter here: he was planning to speak as God himself – a risky position, especially when combined with a logocentric religious tradition and a word-based artistic genre.

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For dread of death I am all shent:
Timor mortis conturbat me.

‘When I shall die, I know no day;
What country or place I cannot say;
Wherefore this song sing I may:
Timor mortis conturbat me …’

¹ Fear of death undoes me
² A male sparrow hawk
When we’re writing, we’re not talking to ourselves but to language itself and everybody who speaks it. And answers come back, a feedback loop created by form. The willingness to listen to this is what makes a writer great.

The American Wallace Stevens called the poet’s work ‘the stronger life’, an emphasis that I share. Poets’ work is generally ignored, extremely badly paid (if at all) and socially isolated. It requires self-questioning, rumination on difficult issues and large stretches of time when you have no idea of what you’re doing or whether it will be of any value at all. In this situation, I’d say that, far from being casualties, writers are the SAS of the written word.

So, what is good speech, virtuous speech, in the original medical sense of bringing strong benefit to the user? When my husband was diagnosed with Stage IV Lymphoma, I set a long poem in a hospital. This made me think about how my writing fitted into the whole process of healing him. This was my updating of the classical invocation to the gods:

I've said already that I won’t feel well till this poem's finished and I find what I mean about health and loving. It's a hospital, this place I'm constructing line by line, with clinics in it and sunlit rooms open to anyone. Words are my health, the struggle to hear and transcribe the tune behind what I'm given by word of mouth, it's the only work that can make me immune to lying. May my language gene grant me haemoglobin and many platelets, potency deep inside bone marrow. My safety lies with other poets Who've shown the way they took through shadows. Milton, Villon, be with me now. I want to capture what it is to care for someone you love who's very ill.1

3 Hospital Odyssey (Bloodaxe Books, 2010), p. 59

This article is an edited version of ‘That Way Lies Madness: Poets, Power, Health’, the 2018 Disability Lecture given at the Equality and Diversity Unit, University of Oxford, 17 May 2018.

Gwyneth Lewis was the inaugural National Poet of Wales 2005–2006. She is an award-winning poet in two languages. She has held Harkness and NESTA fellowships and spent time at the Radcliffe Institute for Advanced Studies in Harvard and at the Stanford Humanities Centre. She was the Bain-Swiggett Visiting Lecturer in Poetry and Literature at Princeton University 2014; she teaches regularly at the Bread Loaf School of English and was awarded the Robert Frost Chair of Literature 2016. For details about her work, see www.gwynethlewis.com.
Since I took early retirement from my career as a doctor, I have worked part-time as a volunteer on three continents. I spent seven successive winters helping out at a small, busy charitable hospital in Cambodia; I worked for part of one summer at a hospital on the slopes of Kilimanjaro in Tanzania; and now I assist at a small, rural, non-profit hospital in Guatemala, Hospitalito Atitlan. I believe that the happenstance of one’s own birth into a society that offers the prospect of an education second to none, and which in my own time was essentially free, is a gift of immeasurable worth. I am but one of many international medical volunteers who are paying forward, so to speak, on their debt to their own society, and to those in the world who are less fortunate.

The Hospitalito Atitlan lies on the outskirts of the town of Santiago Atitlan, home to more than 50,000 Guatemalans, almost all of them Maya. The Maya are an ancient race whose civilisation in central America dates back more than three millennia. In their heyday they built many cities including large temples, administrative buildings and sports arenas, and developed a trading network linking these city states. Their decline was, however, already under way when the Spanish arrived, hastening the process.

Lake Atitlan, in the Central Highlands of Guatemala, is a volcanic crater or caldera, measuring 10 miles in maximum diameter. Surrounding this beautiful lake are a dozen towns and villages in which the Mayan culture is preserved. Many of the inhabitants retain the traditional clothing, occupations and language; and while the younger generation speak Spanish as well as Mayan, many of the older Maya speak nothing else.

The hospital centres around a busy outpatient department, seeing all comers until the last patient of the day is dealt with. There is a small but busy emergency room, well equipped by their standards and open 24 hours, with 16 in-patient beds. The hospital has two nicely appointed operating rooms, used mainly by the obstetricians and gynaecologists for caesarean sections and gynaecological surgery. The work there ranges from general medicine to orthopaedics and dentistry, with a heavy dose of obstetrics and pediatrics thrown in. There is no resident general surgeon, and surgical emergencies must travel to the nearest larger hospital two hours’ drive away by bumpy road. Periodically entire surgical teams from the USA come here for a week at a time, to operate on patients with chronic surgical problems that have been saved up over the previous months.

The medical staff are intelligent, well trained and eager to learn more. Many grew up in this area and are bilingual in Spanish and Mayan. Volunteers like me are primarily focused on giving further training to the doctors (as in the photo above right), while assisting with patient care. In my case I work on teaching them radiology, for example how to interpret a chest X-ray, and especially how to use their ultrasound scanner for more than basic obstetrics. Abdominal pain is a frequent complaint here, as in all hospitals. With ultrasound they learn to recognise common causes such as gallbladder stones, with or without acute infection; kidney stones, with or without kidney blockage; acute appendicitis; and tumours arising from abdominal organs.

Spanish alone is spoken by the hospital staff – no English here! Hence it has been necessary for me to learn enough Spanish to function in my role, a not inconsiderable task for someone of advancing years and diminishing hearing.

This is a poor country, and it is little more than twenty years since the end of their civil war, in which many innocent Maya lost their lives. The people here now live in harmony, and I find them gentle, friendly and welcoming. Having spent much time in Cambodia, I see striking similarities between the two countries, their past struggles, and their ability to shake them off. As a volunteer I sleep better knowing that I am working not to make money, but to help in a small way the common good in this world.
Grace Joel (2016) talks to UN Special Representative Matthew Nimetz (1960) about his career

Matthew Nimetz has forged a unique career across three distinct professions – law, diplomacy and private equity. From serving under the Johnson, Carter and Clinton administrations to devoting the past 25 years to negotiating the naming dispute between Greece and the former Yugoslav Republic of Macedonia, he has played a part in a number of critical moments in US political history. He has also participated in the growth of two major law firms and a leading private equity fund. I had the privilege of sitting down with him to discuss his career trajectory and his perspectives on international relations and diplomacy.

After graduating from Williams College in the US as a Political Science major, Nimetz read PPE as a Rhodes Scholar at Oxford. While here he relished the ‘opportunity to study, read and interact intellectually without pressure’, with lectures by such scholars as Isaiah Berlin standing out as a highlight. He embraced the environment and the people, and he fondly remembers a trip he took in the summer vac, driving a Land Rover from Oxford to India. At that time, he says, ‘the world was relatively peaceful’; sadly, driving through Turkey, Iran, Afghanistan and Pakistan down to India is something Oxford students could not easily do today in the current political environment.

After leaving Balliol in 1962, Nimetz earned a law degree from Harvard Law School, an experience he recalls as ‘gruelling and challenging’, but one in which he clearly excelled: he went on to work in Washington in 1965 as a law clerk for Supreme Court Justice John Marshall Harlan (Balliol 1920). Two years later Nimetz moved to the White House to work under President Lyndon B. Johnson. Nimetz speaks of the experience with gratitude, describing it as an ‘honour to be on the White House staff’. However, it was a tense time in US international and domestic relations: the time of the Vietnam War, racial disturbances and the assassinations of Martin Luther King and Bobby Kennedy, which challenged political leadership in unparalleled ways. Nimetz’s White House role was not at a senior level, but he hopes he made an impact: striving ‘to make a difference even if it is not on a global scale, even if you help one individual, it sometimes feels so much better and in fact often makes a profound difference’. He recalls working day and night to deal with the reality of domestic conflict as riots spread across black communities, while at the same time working with black leadership to calm the nation, as one of his most meaningful and valued contributions.
Matthew Nimetz (left) in 2009 with Greek Prime Minister George Papandreou during a meeting about the naming dispute between Greece and the Republic of Macedonia.

Nimetz then returned to NYC and pursued a career in corporate law until 1977, when his boss, Cyrus Vance, who was then Senior Partner at the firm, visited his office on a Friday and gave him the news that he had been named Secretary of State under President Jimmy Carter. Vance invited Nimetz to join him in Washington; he needed an answer by the Monday. Nimetz had recently been made a partner, his wife was four months pregnant and he had little idea what the role would involve; but, he says, ‘This opportunity comes up and you have to make a decision. How often does the Secretary of State say, “Come with me?” So I said to my wife, “Why don’t we do this?”’

His work under President Carter in the State Department coincided with another challenging period in US history. Nimetz played a role in implementing the Helsinki Accords on human rights, dealing with arms control and relations with communist states of Eastern Europe, and he oversaw a series of tense Greek–Turkish–Cypriot issues. Given all his White House experience, I wanted to understand his views on the present US administration. His words ‘I am a very concerned citizen right now’ – something of an understatement, as he made clear – summed up the sentiments of many of my peers. The rise of ethnic, racial and other antagonisms, a breakdown in the global structure painstakingly built up during the post-war period, increased economic inequality, and the ‘disastrous damage we’re doing to this planet’, this last one of his strongest concerns, seem to him to be dismantling what his generation tried to build throughout his years in the public and private sectors. Although Nimetz maintains it is not impossible to reverse the course we seem to be on, he says ‘a lot of damage has been done’ – an assessment that seems to serve as a call to action for the younger generation to step up and challenge where present leadership is failing us.

As a result of his work on diplomatic issues in the Mediterranean, in 1994 Nimetz was appointed as President Clinton’s Special Envoy to mediate a dispute between Greece and the newly formed republic of Macedonia. The dispute arose after the fall of Yugoslavia over the name of that new state, which had been provisionally admitted to the United Nations as the former Yugoslav Republic of Macedonia. The dispute was between Greece and the newly formed Republic of Macedonia. The dispute was over the name of that new state, which had been provisionally admitted to the United Nations as the former Yugoslav Republic of Macedonia. In 1999 Kofi Annan, Secretary-General of the United Nations, invited Nimetz to assume the role of UN Special Envoy to continue these negotiations. The task kept him occupied on a part-time basis for another 19-plus years. Finally in June 2018 he succeeded in brokering an agreement, with both sides accepting his suggested new name, ‘Republic of North Macedonia’. The parliaments of the two countries ratified the agreement in January 2019, after tumultuous debates and popular demonstrations in both Skopje and Athens. Nimetz says he is the longest-lasting mediator in the history of the United Nations.

Nimetz is philosophical about the length of the assignment: ‘People laugh and say how can it take so long to pick a name; but in human history, how long is long in resolving issues that really are about historic identity and long-term tension between two peoples and two countries?’ He believes his attitude to mediating is different from that of many other public figures who play this role. Rather than seeking to ‘solve a problem’, for instance, he prefers to use the term ‘manage a problem’, as ‘there are issues that cannot be fully resolved and we have to be very realistic about what is possible and what is not possible’. He makes a conscious effort not to allow his ego to get in the way; ‘a mediator has to remain a bit in the background’, he maintains. By limiting controversial public statements, minimising his voice in discussion when the parties are doing well on their own, and ‘very rarely getting my own personality too involved in it’, Nimetz feels he was able to maintain trust and extract what was important to both sides.

In his view his diplomatic skills include many of the skills he used in his career in law and later (2000–2011) as chief operating officer of a successful global private equity firm. Those roles too required him to ‘develop trust with people, be intellectually honest, pay attention to facts and listen very carefully’. He notes that in conversation individuals can be so focused on their own next sentence that they forget to listen to what the other person says. For Nimetz, this misses a crucial aspect in negotiation, as ‘it is critical to listen carefully to what people say to understand what they truly mean, and sometimes, the most important thing is what they don’t say’.

His career undoubtedly plays as a highlight reel. To what does he attribute his success? For one thing a balanced life. ‘I put serious time and effort into my family and also into a select group of not-for-profit activities along with my professional work. Importantly, I had some luck that definitely helped out. I think one has to be willing to take risks and grasp opportunities when they arise, focus on what is meaningful and not look back.’ For Nimetz, that is a career approach that seems to have worked.
We invited some of the Balliol alumni who work — or have worked — as teachers in the UK and beyond to share their experiences and views.
James Brennan (1955)

My first essay for Rodge (A.B. Rodger, Fellow and Tutor in Modern History 1924–1961), on whose still much-missed soul be peace, was about Henry the Navigator. The reception was friendly, musical, peripatetic and jingling – Rodge’s pockets were full of coins, which accompanied his heartthug singing with subtle dissonance. The first time, a dozen years or so later, I faced a 12+ (Scottish secondary admission age, then) Oban history class, at 30 seconds’ notice, with the whispered introductory information ‘Trade in the Middle Ages’ just before I was pushed inside, I think Rodge must have been somehow in the room. Singing seemed inappropriate, but they did have a text. Which later turned out to have been written by the teacher whose MS had caused my recruitment. It consisted of a chapter (one of 42) written in a series of 10 paragraphs, each one of which generated a question for written answer. So we read it. Henry the Navigator was there, and I greeted him as an old friend. The pupils were his students, and this was vitally important, when they presented their text-based written answers to the teacher at his desk, every answer – no matter what it said – was right and must be given full marks. Andrew Murray was a great and unconventional teacher. What he was trying to do was not to impart knowledge but try and help pupils deal with the unknown.

That evening I went up the hill behind the town to meet my predecessor. His book had been compiled for a specific purpose, but not the apparent one. The important thing was to give the pupils the courage to write about history. Consequently, and this was vitally important, when they presented their text-based written answers to the teacher at his desk, every answer – no matter what it said – was right and must be given full marks. Andrew Murray was a great and unconventional teacher. What he was trying to do was not to impart knowledge but try and help pupils deal with the unknown.

History was a means. It might appeal to farmers’ sons who would come in late on February mornings after an early rise looking for sheep in snowdrifts. A silent and distant lad might suddenly admit to an absorbing and informed interest in lasers. In Inverness a girl might tell you that her family had flattened their young green crops every year since Cumberland’s cavalry had trodden them down on their morning ride to Culloden. Another would tell you – in a discussion about Bruce – that Cumming could not be a Norman surname, because she had a Cumming Cherokee cousin, so it must be Red Indian. You had to know how far, and why, she was right.

Such extremities were rare, but they were part of an unpredictable dialogue in which it was a privilege to share and try to continue. Murray’s pupils in Oban particularly were bold and stood up for themselves intellectually. The history they knew sometimes matched the history they were officially supposed to be taught, and their perception of the world, and sometimes rejected it.

When I retired, shortly after the study of the impact on Britain of the French Revolution had been officially withdrawn from the Scottish Higher curriculum, the rediscovery of Highland Scotland’s role in the Caribbean slave economy, out of which my Inverness school had come, was only just beginning, led among others by the son of a former Inverness colleague. In my entire classroom career I don’t recall myself (and I had heard Professor Richard Pares (Balliol 1921) talk to us about the Elder Pitt shortly after my first essay for Rodge), or any colleague, ever being required to mention it in a classroom. Just as well. Most of us had never even heard about it, in a part of Britain from which emigration had been taken as a given for at least two centuries. Things have changed since, but who dares to decide how much discussion of such things might be relevant to young lives?
‘Did I make an impact on young people’s lives? I’m sure I did, particularly in the early years’

Robert Mash (1958)

I left Balliol in 1964, having taken a BA in Zoology and a BSc after doing research in Ethology. After a stint writing programs for teaching machines I worked for a few years doing research into medical education at the BMA. In 1969 I became fed up with London, and decided to take up teaching. (I had taught part-time for a year at Magdalen College School and Oxford High School.)

Because I did not possess a DipEd the state sector wouldn’t accept me, so I became a Biology teacher in a small public (i.e. private) school in Dorset. The A-Level Biology syllabus then filled two A5 pages. The exam was at the end of the second VI Form year, so I was able to spend the first year covering all sorts of biological matters that interested me or my pupils. The second year I stuck more rigidly to the syllabus so that by the time the exam came round, the syllabus was covered. The written exam allowed candidates to choose questions that suited them and avoid others. This was the time that I found most fulfilling.

By the time I left teaching in 1999, the syllabus had turned into an A4 booklet which specified, in great detail, what a candidate was going to be examined on, what terms needed to be learnt and what examples given. There was an exam at the end of each term. The teacher was no longer an inspiration but a sort of automaton that made sure that pupils learnt the facts provided in the time allocated. My teaching impact became less, and rewards and satisfactions became fewer as the syllabus became more prescriptive; by the time I left I felt that I was little more than a cog in an exam machine. Instead of trying to inspire, I was part of the bureaucracy.

Did I make an impact on young people’s lives? I’m sure I did, particularly in the early years. I recall an enthusiastic John Krebs, who later became Principal of Jesus College, Oxford; I remain in touch with many ex-pupils and I do not doubt that Balliol’s influence was immense.

Gerard Evans (1976)

When I went down from Balliol in 1980 I opted (unimaginatively) for a career in the City, but my experience of being a language assistant in Germany had left its mark and I wondered whether one day I might turn my hand to teaching. Ten years later that is precisely what I did; and it is probably the best the decision I have made in my life. I cut my teeth at Cheltenham College, where I taught German and French to GCSE and German to A-Level, and threw myself fully into the intense and slightly mad world of a boarding school. I was quickly smitten. Teaching teenagers certainly presented its challenges, and was in many ways a more daunting task than anything I had done in the City. But I quickly realised that helping young people to make the most of their abilities afforded immense satisfaction. I also saw teaching as a great privilege. These are sentiments I have never lost.

After Cheltenham I spent 25 years at Eton College. I ran the Modern Languages Department for 10 years and then moved on to become Director of Curriculum, a role that entailed shaping and fine-tuning the school’s academic and co-curricular programmes. Eton sets high standards and is a demanding environment in which to work. Many of the pupils are of exceptional ability: they expect to be stretched and challenged; and they have a huge appetite for learning. Looking back I can see that my experience of Balliol was ideal preparation for my time at Eton.

At both institutions I loved the academic atmosphere and the extraordinary range of talents with which I came into contact. As I look at the secondary education sector in the country today I bemoan the fact that Modern Languages is in such a parlous state. I also feel that the independent sector deserves greater recognition for its outreach work and its extensive bursary programmes.

‘I quickly realised that helping young people to make the most of their abilities afforded immense satisfaction’
Anthony Skillicorn (1979)

As a South African coming to Balliol in 1979 I was acutely aware of how political education is. It was partly this, and marrying a German graduate student whom I met in Holywell Manor, that guided me away from national systems towards international schools.

After stints in public, grammar and comprehensive schools in 1987 I was fortunate enough to secure a post in the United World College of South East Asia. Singapore was still developing at that stage and this, along with teaching the International Baccalaureate Diploma in an institution with the clear mandate of making education a force to promote international understanding, resulted in my initial three-year commitment transforming into a 26-year stay.

With scholarship winners from all over the world attending the various United World Colleges, teachers become facilitators of learning and promoters of initiatives. This allowed me to develop extra-curricular programmes which reflected the mission of the school and movement but also empowered students to turn their ideas and ideals into action.

Three in particular have been widely praised: the Tsunami Education Fund for orphans from Banda Aceh; Global Concerns; and the Initiative for Peace. This last brings youth from different sides of a conflict together to promote reconciliation. Successful conferences have been held, dealing with Kashmir, Timor Leste, Sri Lanka and the Burmese refugee issue. These necessitate students receiving a year’s planning and training in conflict resolution and negotiation techniques before they themselves run the conferences, which are held in situ. The Global Concerns programme enables students to establish and then run awareness and fundraising groups focusing on an area about which they feel passionate. When a student returned from visiting her project, which offered training to the physically disabled in Cambodia, she told me: ‘I used to pity these people, now I respect them.’ As an educator satisfaction is when one learns from one’s students.

Schools today must have a clear definition of learning which must be at the forefront of their thinking and practice. Skills and conceptual understanding are increasingly important and schools need to equip students for the pace of change and the power of disruptive innovations. The necessity of schools as places of socialisation remains, but this needs to incorporate the softer skills of cooperation, communication and coexistence. It remains an exciting time to be a teacher!

Ian Farrell (1984)

I left Balliol to become a History teacher at Cherwell School in north Oxford in 1989. I became a Head of Year there before moving to the Wilnecote School in Tamworth in 2000, first as Head of Humanities before moving on to Assistant Head, then Deputy Head and then, since January, returning to the Head of Humanities role that I love.

In these close-on 30 years of teaching, I do not think I can remember a time when there have been so many challenges facing education. Real-terms budget cuts are leading to increasing class sizes, reductions in the number of teaching assistants who support the more vulnerable students and many schools having to restrict the subjects they offer, as they are no longer able to sustain subjects like Music and the Performing Arts which the government has deemed less valuable. Yet despite all this, it is still a career that I have no regrets joining because of the immense rewards it brings. One example will suffice to illustrate. In 2014 a former A-Level history student from Cherwell tracked me down at Wilnecote and asked me to come to the launch of his first book. Apparently, I had inspired him to take History A-Level and then pursue academic history as his career. Until he contacted me, I had had no idea of this, but to receive a dedication in his book for the encouragement I had given him confirmed that I had achieved what I set out to achieve in teaching: inspire children with the lifelong love of History that my teachers and Balliol had given me.

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Catharine Wensley (1985)

My current role is Deputy Headteacher at an 11–18 academy on the outskirts of London. Throughout my career, I have had the privilege of working with young people in a range of settings in and around London. Over the past decades the structures and systems have changed, but the challenges and rewards remain the same as you take young people on a journey from childhood to adulthood. As recent neuroscientific research shows, the teenage years are a very busy time for the brain and there are no better creative ideas than those that happen in our classrooms every day.

At a conference some years ago, we were asked to write on a slip of paper why we chose to work in education. I put the paper in my jacket pocket and when I found it again, months later, I was struck by the power of deep moral purpose: it simply said: ‘to change children’s lives’. However tough it gets, I picture the young people I have worked with over the years and I know that it has all been worthwhile.

I have experienced both deputy headship and headship, always in challenging circumstances. In one school, I stepped into acting headship over a weekend and I remember sitting in the Headteacher’s office on the Monday morning gripping the edge of the desk as if I were aboard a ship in a storm; I certainly felt a little queasy. We were in an era of UTCs (university technical colleges), free schools and a massive expansion of the academies programme. It felt a little like the Wild West and in my next roles, I worked in schools which had been struggling for many years and on many fronts. This wide range of experience has taught me that there is outstanding practice which is transferable, but each school is unique and needs a tailor-made approach.

As a Balliol undergraduate, I learnt to speak out with confidence and develop and refine my thinking. I also experienced the cultural capital which comes with a great education and I have dedicated my life to providing that for others.

‘The teenage years are a very busy time for the brain and there are no better creative ideas than those that happen in our classrooms every day’

Amber Haq (1994)

I am currently Assistant Head of Sixth Form and Head of Year 13 at St George’s British International School, a non-selective IB, HMC School catering to some 65 nationalities based on the outskirts of Rome. Whilst my route into teaching was somewhat circuitous (I worked in the City for many years as an FCA, and was correspondent for Newsweek in Paris for several others), it is without doubt the most rewarding work I have done so far and intensely creative.

On the one hand, I teach Chemistry Higher Level and Theory of Knowledge, engaging constantly with sharp and bright (and amusing) students who are questioning and challenging me and developing critical thinking and innovative approaches to problem-solving. On the other, my team and I are responsible for ensuring that students are given the correct support, tools and environment in which to thrive and develop their thinking whilst investigating the world.

From a management and leadership perspective we work to instil curricular systems and teaching and learning standards that reflect the latest developments in educational thinking.
My management and financial experience comes in particularly handy with data-driven decision-making, but education is above all about understanding the individual and appreciating the many extraordinary ways we can all develop, and creating an enquiry-based, scholarly and collegiate culture in which students can flourish.

I am an advocate for the IB (which Alec Peterson, Balliol 1926, was instrumental in developing): it is an intellectually demanding and rigorous course which aligns with values I hold dear, inculcated in me by my parents and the likes of John Jones (1961 and Emeritus Fellow), David Logan (Emeritus Fellow), Julia Hore (College Secretary 1980–2007), Douglas Dupree (Emeritus Fellow) and Dermot O’Hare (SCG Fellow and Tutor in Inorganic Chemistry). These are the values of mutual respect and understanding, independence of thought and spirit yet co-operation and collaboration for the higher good, academic brilliance, active citizenship and a flair for internationalism.

Education changes lives – and, whilst there are numerous serious issues arising within educational systems, both public and private, in Italy as well as the UK, I cannot think of anything else more urgent than to ensure that each young mind we have the privilege of teaching to read, write and think understands what it is to respect knowledge, and has the tools and curiosity to seek it and apply it over a lifetime.

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‘The rewards are when a student truly makes progress. The challenges are innumerable’

Siobhan Dickerson (2000)

I have been in teaching for 14 years now: apart from a short dalliance in banking, I went straight from Balliol to secondary English teaching, training on the job through the Graduate Teacher Programme.

I have worked across many different types of schools, including private and single sex, and in 2017 I decided to take a demotion to work for an International British school in Dubai. I am currently Head of English in a large corporate school, but my previous position was as Assistant Head Teacher in a local comprehensive in the north of England.

Both staff and students often question why I teach when I went to such a prestigious university and my answer is always the same: so that I can motivate, support and lead others to achieve their true potential and unlock the next stage of their life. The rewards are when a student truly makes progress – finally understanding the meaning of a text or challenging me to think about a text in a different way. The challenges are innumerable – work/life balance is a huge issue in teaching, as are the new performance-related pay policies and drastic cuts to budgets. One of the main reasons my fellow expat teachers cite for fleeing the UK system is draconian management and ridiculous expectations from senior leaders. Another is the poor behaviour in UK schools.

Balliol honed many skills for me, enabling me to deal with these pressures, and I use each in my daily life as a teacher and a leader: skills of articulation and confidence when speaking aloud or when presenting to senior leaders and governors; skills of time management and prioritising workload; having courage and belief in myself even at the end of a really long term or when making difficult managerial decisions. Living at Balliol also taught me the importance of more relational skills such as listening to colleagues when they really need a good moan and the essential need to foster team spirit. I have always tried to keep a very close small team – maybe a throwback to my class of eight at Balliol. I also try to celebrate the successes and efforts of my team regularly; I let them know they are important and special, and that we all work together, because, as we all know, together, floreat domus!生涯及过往

Siobhan Dickerson on her wedding day at Balliol.
Maja Starcevic (2004)

As I am writing this, 32,000 public school teachers in Los Angeles (where I live) are on strike, which is affecting over 600,000 students. One of the demands the teachers have is to lower class size; the LA School District is so far offering to cap the number of students in a high school English classroom at 39. More than 80 per cent of the students in the LA public school system (LAUSD) are living at or below the poverty line. My son attends a charter school within the LAUSD system. We as parents are constantly raising money in order for our children to have the basic necessities in the classroom – tissues, paper, pens, pencils – and the ‘luxuries’ which have been cut with the last round of cuts to education in the recession of 2008: physical education, arts and music, Spanish.

At the same time, I teach English Language and Composition and World Literature to Junior and Senior students at a college-preparatory independent school with a $42,000 per year tuition fee in West Los Angeles. My class sizes are at an average of 13. I have a supportive administration, highly qualified and caring colleagues, the ability to attend any conference or workshop, the freedom to choose books and teaching materials, etc. The inequalities present in our country and our state are reflected in education too. I see it as my duty not only to prepare my students for university and teach them to appreciate literature, but also to raise their awareness regarding social justice through reading, discussing, and writing about both fictional and non-fiction texts from a diverse group of writers. I am proud to say that some of my students have gone off to start non-profit and charity organisations in or after university, and I hope I have helped shape them into informed, active, and concerned citizens of our world.

‘I see it as my duty not only to prepare my students for university and teach them to appreciate literature, but also to raise their awareness regarding social justice’

Charlotte King (2005)

When I began the hunt for a job in my final year at Balliol, I knew I wanted a career that would be meaningful and rewarding but also intellectually stimulating. Teaching has not disappointed. Our state schools are as diverse, complex and vibrant as the whole of British society.

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Despite studying History, I now teach Maths. This perplexes some people but suffice to say: it is possible to be adept at both. For the past four years I have been Head of Maths at Didcot Girls’ School, which is a comprehensive school in Oxfordshire and a truly inspirational place to work.

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I am proud to have had an integral role in the school’s transformation from having fairly average results to being in the top 3 per cent nationally for pupil progress. I am even more proud that the improved results came from a focus on school culture, ethos and quality of our provision, not a relentless focus on exam technique. I would like our politicians to understand that national initiatives are a blunt instrument; it takes highly skilled and dedicated professionals to put them into practice.

‘Teaching has not disappointed. Our state schools are as diverse, complex and vibrant as the whole of British society’
Jaya Carrier (2007)

I am Assistant Vice Principal for Teaching and Learning at Westminster Academy and Honorary Lecturer in History Education at the UCL Institute of Education.

Throughout my career I have worked in schools with a high number of students from disadvantaged backgrounds. As such, raising aspirations has always been an important part of my work. Whilst the impact of this work is difficult to measure, it is always extremely humbling to see students who are empowered to set their own goals and can understand how to go about reaching them.

Though I spend less time in the classroom since becoming a senior leader, as a History teacher the most rewarding part of my work is still seeing students grow into thoughtful scholars, who possess a genuine curiosity about the past.

One of the most pressing challenges school leaders face is maintaining teacher morale as we strive to maintain the highest possible quality of education with fewer and fewer resources.

My time at Balliol left me with a huge passion for my subject, which underlies all my work both in the classroom and in training the next generation of History teachers. The tutorial system in particular also helped me think about problems critically and carefully, which is an essential skill for school leadership.

Schools in the UK are facing very difficult challenges today. Funding cuts, constant changes in education policy and difficulties with teacher recruitment and retention mean that we need to consider very carefully what we value about education, and how we may best support that vision.

‘Funding cuts, constant changes in education policy and difficulties with teacher recruitment and retention mean that we need to consider very carefully what we value about education, and how we may best support that vision’

Emily Seeber (2007)

I have been working as a Chemistry teacher in the UK for the past eight years, and I am currently Head of Sciences at an independent boarding school in Hampshire. My time at Balliol has ensured that the wider philosophical issues surrounding education have never been far from my mind, and I regularly share my perspective in educational magazines, such as the TES. I have advocated the dissolution of setting and streaming on the basis of equity, critiqued policy-makers’ impoverished interpretation of what constitutes a knowledge-rich curriculum, and I was on Radio 4 last year discussing the demonisation of sarcasm in schools.

A significant part of my role is dedicated to mentoring graduate teachers entering the profession, by offering on-the-job teacher education, and leading professional development in my department. I am concerned that the dominant model of teacher education, both in the UK and internationally, in which teachers are given ‘tips and tricks’ for the classroom at the beginning of a 40-year career, is destined to fail. I am particularly interested in how the education system needs to shift in the face of major societal changes taking place, particularly in the open, informal ways that most of us now choose to learn, and how to ensure that teachers can adapt and flourish in their own learning throughout their careers. Moving forwards, I hope to take on a PhD in Education and then have a more active role in reforming policy on teacher education.

‘My time at Balliol has ensured that the wider philosophical issues surrounding education have never been far from my mind’
In October 1979, Balliol’s Porters had the unfamiliar experience of welcoming women students to the College’s Broad Street rooms for the first time. After several years of discussion with the University, Balliol had become co-educational, following on the heels of Brasenose, Jesus, Wadham, Hertford and St Catherine’s. The first women students to arrive at Balliol’s formidable doors recall the warm welcome they received there; it was the beginning of a new era for the College and one which was to prove transformational.

Forty years on, we stand poised to celebrate the quadragennial anniversary of this moment. Planning is underway for a programme of events that will celebrate women who have contributed to the College over the past four decades and reflect on the contribution of those who came before them. We also plan to use this platform to promote equality and inclusion and to champion change both within our walls and beyond them.

The inaugural event took place on a - mercifully dry - day in early March when Balliol women - Fellows, Lecturers, students and staff who identify wholly or partially as women - were invited to assemble for a photograph at the sundial in Garden Quad to mark International Women’s Day. The atmosphere was uplifting and conversations carried on well beyond the final photo call.

This set the tone for the launch, later that day, of the Balliol Women’s Network at the University Women’s Club in London. Seventy Old Members and College staff attended a reception to meet and hear speeches on the International Women’s Day 2019 theme of ‘Balance for Better’. The Master began the evening’s discussions with remarks on the important role of women in academia, Camilla Bingham (1988) spoke about the importance of women’s representation in the judiciary and Rosie Bailey (1997) concluded with thoughts on mentoring and leadership.

‘If our institutions are viewed as bastions of entrenched prejudice, oblivious to changes in society, people will find it hard to accept them as guarantors of law and human rights. Women’s influence across these institutions is vital but our representation is still low. Balliol women are active across the widest spectrum of civic life and the more we can share our experiences and connections, the greater our collective impact.’

Camilla Bingham (1988)

‘It is now well established that the best way to build sustainable female leadership is through mentorship. Leaders succeed when they have the chance to connect with others and learn. The Balliol Women's Network offers that opportunity to our community: the chance to learn, to connect and to establish more structured mentoring relationships that build confidence in our personal and professional lives.’

Rosie Bailey (1997)
The launch of the UK Network was met with great enthusiasm and it is anticipated that meetings will be held twice a year, one in Oxford (to facilitate attendance by current members and staff) and one in London. Internationally, we are grateful to have identified hosts in New York, San Francisco, Hong Kong, Tokyo, Kuala Lumpur and Singapore who will hold Balliol Women’s Network meetings on International Women’s Day in 2020, extending the reach and impact of the Network (details of these events will be published closer to the time). If you would like to host an International Women’s Day meeting of the International Network in your home city, please let the Development Office know and they will be happy to help.

The first celebrations in College will begin in September with the opening of an exhibition, ‘Dervorguilla and Daughters: 750 Years of Women at Balliol’ at the Historic Collections Centre at St Cross. The exhibition will delve into Balliol’s historic collections to illuminate the contribution of women to the College’s history. We hope it will appeal to a wide audience of visitors and friends alike. A catalogue will be available in print and online for those unable to attend in person.

Later that month, on 27-29 September, Balliol will play host to a weekend of talks, discussions and dinners in celebration of ‘Balliol Women: 40 Years On’. This event will begin with a private view of the exhibition and an informal meal in Hall on Friday evening for early arrivals, moving to a full day of talks and discussion on Saturday with a reception and formal Hall that evening, and finishing with a programme at the Boathouse on Sunday to celebrate Balliol’s women rowers. Booking for the Anniversary Weekend is restricted to women Members (Fellows, alumnae, staff and students) and will be open by the time of publication.

In addition to bringing Balliol women together, we hope that the activities of the anniversary year will have a tangible, positive impact on future generations of Balliol women. As we think about the ‘balance for better’ within our own community, we see areas in which we can do better. We have therefore chosen two anniversary projects that directly address gender imbalance in our student intake. The first is the funding of Dervorguilla postgraduate scholarships, which are offered to women applicants in subjects where women are typically under-represented. The second is the support of access activities that address imbalance in our undergraduate intake, of which the women-only PPE Taster Day that took place during Hilary Term is excellent example. We look forward to sharing details of these important priorities throughout the year and encourage you to contact the Development Office if you would like more information.

Finally, as we think about balance not just in our vital statistics but in our physical spaces, we will mark the anniversary by commissioning new portraiture that celebrates Balliol women. Without giving too much away, the unifying theme of the series is ‘Community’ and the portraits will be representative of women who contribute or have contributed to the life of the College in different but significant ways. The subjects will include Fellows, alumnae, women with a significant connection to the College, staff and current students, and the portraits will be unveiled in Michaelmas Term this year.

With a full and exciting programme of commemorative activities – and more in development - we look forward to connecting with many of you over the coming months and to an enjoyable and constructive anniversary year.

‘Two Queens Race’ game: answer to chess problem by ChessPlus director John Foley (1974) on page 29:
You can help to secure Balliol’s future by leaving a gift in your will. Gifts of all sizes have a lasting impact on everything we can do here. Your support will ensure that Balliol is open to the brightest students, help the students who need it the most during their time here and protect the future of the tutorial system.

If you would like more information about leaving a gift in your will to Balliol, please get in touch with us at development.office@balliol.ox.ac.uk or telephone us on +44(0)1865 277636. As a token of our appreciation, anyone who leaves a gift in their will to Balliol will be invited to join the Greville Smith Society, whose members are invited to an annual event in College.

Thank you for your support