



WHEEL

IN THIS ISSUE: WELLNESS AT ST CATHARINE'S
THE HISTORY OF HOCKEY
CELEBRATING THE PERIODIC TABLE





“We continue to offer a vibrant, diverse, intellectually challenging and culturally rich student experience, in which every student is supported to profit from the unique environment that is St Catharine’s.”

**PROFESSOR SIR MARK WELLAND
FRS, FRENG, FIET, FINSTP (2016)**
Master

The Master's Welcome

After my election as Master at the start of Michaelmas 2016, I began a comprehensive review and analysis of the current state of the College, focussing on our commitment to providing the very best experience for our students. As part of this, we have also reviewed the support we provide to the Fellows and staff, the state of our buildings and the health of our finances and investments. I am delighted to say that this substantial body of work is now complete, and we are at an advanced stage of developing a strategic vision for the College and a strategic plan to realise this vision. I look forward to sharing this with you in the near future.

The College is an outstanding and nurturing academic community, providing our students with exceptional opportunities for learning and research, and providing a springboard for them to make an impact on the world. We do this by being competitive in attracting and retaining the highest

calibre of students, Fellows and staff, by providing a supportive environment and by managing our finances and investments responsibly. We continue to offer a vibrant, diverse, intellectually challenging and culturally rich student experience, in which every student is supported to profit from the unique environment that is St Catharine's.

Of special note, in spring next year the College is hosting a major public exhibition to celebrate the International Year of the Periodic Table of Chemical Elements. This coincides with a very generous gift by two of our Members of the only recorded copy in the UK of Mendeleev's *Principles of Chemistry* from 1869, in which the Periodic Table first appears (see page 16).

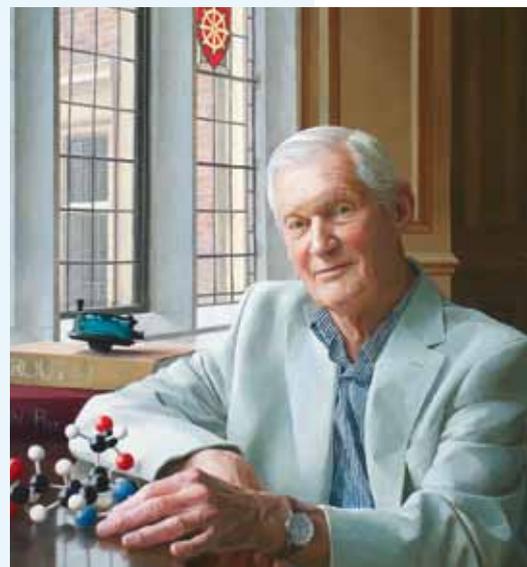
I do hope you enjoy reading news from the College in this year's *Wheel* and that we can welcome you back to one of our events, at St Catharine's or further afield, in the near future.

In Memoriam

PROFESSOR SIR ALAN BATTERSBY MSC PHD DSC SCD FRS

Fellow 1969–92, Emeritus Fellow 1992–2000, Honorary Fellow 2000–18

Professor of Chemistry Sir Alan Battersby died on 10 February 2018, shortly before his 93rd birthday. A well-attended Memorial Service was held in Great St Mary's in April. Alan was always very active and lunched in College nearly every day until a month or so before his death. He joined the College as a Professorial Fellow when he took up his Chair at Cambridge, having already led distinguished research teams at Bristol and Liverpool. He specialised in analysing the pathways by which nature makes important chemicals like morphine, haemoglobin, chlorophyll and vitamin B12. He was elected a Fellow of the Royal Society in 1966 and was awarded numerous medals by this and other international academic societies; some of these medals are very valuable and Alan donated all of them to the College to inspire others. He will be very much missed. A full obituary will appear in the 2018 edition of *The St Catharine's Magazine*.



College News



Professor Sir Mark Welland and the University of Cambridge Vice-Chancellor Professor Stephen Toope launched a collaboration with the Nanjing Municipal Government. The creation of the Cambridge University-Nanjing Centre of Technology and Innovation will entail the establishment of a joint research centre and the sharing of revenue derived from the commercialisation of intellectual property. It is the University's first overseas enterprise on this scale.

Sir Mark, who led the negotiations with Nanjing, said, "Ensuring that this unprecedented agreement was negotiated to maximise joint opportunities whilst protecting and respecting Cambridge and Nanjing has been challenging. However, the signing of the agreements by the Vice-Chancellor in Beijing demonstrates that we now have a clear path to take forward this remarkable collaboration".

The College's Boatman Steve Summerlee retired from his role after nearly 43 years of service to the College. We have appointed Carmen Failla as our new Rowing Coach and Boathouse Manager, who joins the College from Syracuse University in New York. Carmen has trained and competed at the Division-I level in the United States and at the national-development level in Great Britain. As a graduate student in 2013 she was recognised on the Collegiate Rowing Coaches Association (CRCA) All-Mid-Atlantic Region Second Team.

As part of the University of Cambridge's outreach efforts, Vice-Chancellor Professor Stephen Toope launched the HE+ programme in Stoke-on-Trent alongside St Catharine's Economics student Jordan Heath (2016), who attended Stoke-on-Trent Sixth Form College.

Jordan joined Professor Toope on the visit to discuss how the programme aims to inspire students from the area to apply to Cambridge. Over 12 months, 150 of North Staffordshire's brightest teenagers will be working on a range of activities, including research projects, university visits and masterclasses with academic experts. Hopefully this programme will be the springboard to more students following Jordan's lead by applying to Cambridge.



The College announced the appointment of Dr Miranda Griffin (2007) as Senior Tutor, to succeed Dr Paul Hartle (1971), who is retiring after 17 years in the role. Miranda, who specialises in medieval French literature, joined St Catharine's as a Fellow and Director of Studies in 2007 and became Admissions Tutor in 2015.

The Master Professor Sir Mark Welland said, "The College is delighted with the appointment with effect from October 2018. Miranda will succeed Paul, who has been outstanding in the role, and she will bring professionalism, significant tutorial experience, a passion for student education and a deeply intellectual approach to teaching and research".

St Catharine's alumnus Dr Emrys Chew (1992) both originated and registered an orchid hybrid named *Vanda* St Catharine's College, Cambridge (*V. tricolor* x *V. ustii*) with the RHS's International Orchid Register.



Elaborating on his tribute, Dr Chew said, "This orchid belongs to the genus *Vanda*, a botanical name derived uniquely from the Sanskrit word for epiphyte, which is something my mentor Professor Chris Bayly (1970), and before him my father Dr Ernest Chew's (1966) supervisor Professor Eric Stokes, would have appreciated both as historians of British India and Fellows of this College. Undoubtedly, this is the first orchid to be named for an Oxbridge college".

If you haven't been following us on our social media channels, you may have missed our regular #ThrowbackThursday posts, which feature spectacular images sourced from our archives by our College archivist Elizabeth Ennion-Smith. This image, given to us by the family of R. E. Livesey, shows a College Dinner from 1915, which is suggested could have taken place to celebrate Livesey's 21st birthday.





ALL ABOUT *Admissions*

It's been another record-breaking year in the Admissions Office. In the 2016–17 admissions round, we'd been delighted to receive nearly 800 applications – an unprecedented number for St Catharine's. What, we wondered, would the next year bring? Might we maintain this number? Might we even build on it?

On 15 October 2017, the closing date for applications to Cambridge, we learned that we had in fact received over 1,000 applications. Only Trinity had received more, and St Catharine's had the most applicants across the University in Natural Sciences, History, English and Modern and Medieval Languages. In a year that saw a 7.6% increase in applicants to Cambridge overall, St Catharine's applications shot up by 31%.

We believe there are several reasons for this dramatic continued increase. For example, we have augmented our presence at the University open days, capitalising on our central location and open, inviting architecture. Another great strength is our charming student ambassadors, who greet prospective candidates on these days and show them around College. Indeed, meeting current students is the best way for prospective applicants to imagine themselves thriving at what might otherwise seem a daunting institution.

However, we are well aware that not all bright school pupils interested in studying at Cambridge are able to travel to open days, so we have also increased our web and social media profile to ensure we are communicating with students virtually as well as in person. In addition, our Schools Liaison Officer, Jessy Ahluwalia, forged links with many schools as well as organising a series of

successful subject taster days, in which students from across the UK sampled lectures and supervisions given by Fellows of St Catharine's.

Over 800 applicants were invited to St Catharine's for interview in early December. The enormous logistical challenges this posed could only be overcome with the enthusiasm and efficiency of all the College staff, in particular Lucy Murray, our Admissions Coordinator. When interview candidates arrived, they were met by our student ambassadors who guided them to their interviews, chatted about what to expect, and were founts of calm and reassurance on a nerve-racking day.

We realise that the chances of success may not seem high to prospective applicants. When we give presentations, we remind our audiences that the University receives approximately five applications for every available place. However, despite this year's large number of candidates, around one in four St Catharine's applicants received an offer from Cambridge, either from Catz or from another college through the pool – showing there was quality as well as quantity in this year's candidates.

We are also pleased to report that 77% of our UK applications came from the state sector; even better news is that 78% of our offers to UK applicants went to those applying from this sector. We now look forward to welcoming our next cohort of successful offer holders to St Catharine's at the beginning of Michaelmas term – and building on this year's admissions success.

DR DAVID BAINBRIDGE (2003) AND DR MIRANDA GRIFFIN (2007)
Admissions Tutors

CATZ *Ambassadors* PROGRAMME

It's not difficult for Cambridge students to find their calendars filling up quickly. In addition to the academic demands on their time, there are endless societies, sports clubs and committees that they could join. So why do 130 of our students choose to make time for the Catz Ambassador scheme?

"So many people say to me they applied because of the tour and the impression that our students gave them."



"I came to an Open Day and really enjoyed it, so I always wanted to be able to provide it when I came to St Catharine's", says Amaara Dudhia, a fourth-year student in Asian and Middle Eastern Studies and Catz Ambassador. "During the open days I meet people at the College who I've never met before, and it then encourages other students to join the scheme. They see the relationship that we have with staff and that makes them want to be part of it."

Lucy Murray, the College's Undergraduate Admissions Administrator, launched the scheme three years ago. "It creates a great relationship between staff and students. Without the ambassador programme, I wouldn't have any contact with students once they start here. But because of this scheme, I'm always bumping into someone I know." Amaara confirms this: "Even my mum knows who Lucy is!"

Twice a year Lucy recruits new Ambassadors. Once it has been cleared with their Director of Studies and Tutors, she has a new group ready to give tours and to help with the larger Open Days, Taster Days and during the very busy interview period. "The students are keen to give tours all through the University Open Days", says Lucy. "When I'm trying to pack up they're still offering to take people round!"

"We want to be sure that all students who want to are able to join the scheme. We don't want finances to be an issue, which is why out of term time we insist on paying them for their hard work and time."

Lucy knows that the tours can have a huge impact on whether or not a potential student will apply to St Catharine's. "So many people say to me they applied because of the tour and the impression that our students gave them. I make sure that I get a good mixture of subjects and interests represented, so that a potential student in Geography or someone with an interest in hockey will be matched up with an Ambassador in the same subject or with the same interests."

And the benefits of the scheme go both ways. "What I like most about it is that the College values us as much as we value the experience", says Amaara. "It made my transition back to College after my year abroad much easier, as all of the staff remembered me."

Looking to the future once they've left the College, Lucy knows that the scheme will continue to play its part. "Even when these students have left, if they want to come back to the College or return to their schools to talk about their time here, that will be supported by the fact that they were Ambassadors. Their relationship with us will go beyond their time at Catz. I'll continue to be friends with Amaara and many others whether they like it or not!"

Amaara laughs. "I'd very much like it, don't worry!" Ultimately, the Catz Ambassador scheme pulls the College together, as we are all working to attract as many of the best applicants we can. That's what we're all here for.

Fellows in FOCUS

DR MAIRI KILKENNY (2016)

Teaching Fellow in Biochemistry

The first three-dimensional X-ray crystal structure of a protein (sperm whale myoglobin) was reported in 1958. One of the pioneers of the X-ray crystallography technique reportedly said that the secret of life lies in the structure of proteins. Since that first structure, the field of structural biology has grown enormously, and today over 130,000 protein structures are freely available. This wealth of information, which allows us to visualise in atomic detail the structures of biological molecules, has proven vital to understanding how biological systems function. Recent technological advances in cryo-electron microscopy enable us to study in detail the three-dimensional structures of larger and ever more complex macromolecular assemblies. Importantly, structural biologists are now able to integrate information from a range of techniques to better understand disease cause and progression as well as develop new therapeutics. My own research focuses on understanding the process of DNA replication in humans. Before a cell divides, the DNA within that cell must be copied so that both daughter cells receive an identical copy of the genetic material. DNA replication is performed by a tiny, yet fiendishly complicated, molecular machine – the replisome – composed of many different proteins. Mere nanometres in size, replisomes are able to faithfully copy billions of base pairs of DNA. In collaboration with researchers around the world, it is fascinating to study how this machine is assembled from its component proteins, and how they co-operate to ensure efficient and accurate DNA replication. In addition to my research, I enjoy demonstrating the fun side of science. I regularly organise science days in primary schools, and it is wonderful to see a whole class of children performing their own experiments.



PROFESSOR MICHAEL SUTCLIFFE (1993)

Professor of Biomedical Engineering



I started my academic career researching aluminium foil production, doing a PhD in the Cambridge University Engineering Department in conjunction with Alcan (part of Rio Tinto), so it has been a long journey to my current interests in composites and biomedical engineering. The common thread is using the engineering approach, specifically in mechanics and materials, to solve practical challenges, whether from industry or clinical medicine. A current project investigates how using lightweight composite materials can reduce the weight of double-deck trailers used by Tesco for their distribution of goods on the motorway network. By reducing the weight of the truck, more goods can be carried without exceeding the maximum allowable axle weight, thus reducing the number of journeys needed and hence fuel costs and CO₂ emissions. This project, funded by Innovate UK, is in conjunction with two trailer manufacturers as well as Tesco. The new trucks have been designed and trials within the Tesco fleet are starting soon. On the biomedical side, I am working with clinicians at Addenbrooke's Hospital to improve diagnosis and treatment of traumatic brain injury (TBI). Initial traumatic damage to the brain can result in swelling and excessive intracranial pressure, leading to further brain damage and disability. Hospital treatment using drugs can in some cases be used to control this excessive pressure, but as a last resort part of the skull can be removed. However, the way that this life-saving operation influences the mechanical deformations in the brain is not clear and there is concern that further damage might be caused. Engineering research uses image analysis and mechanical modelling to understand better this brain deformation during TBI and how medical or surgical treatments can help the patient.

St Catharine's Alumnus ANDY JONES

Swims the Channel

Andy Jones (1990) exhibited his formidable swimming (and water polo) credentials whilst at St Catharine's, competing for the University team and qualifying for a Blue in all four years of his undergraduate degree in Chemical Engineering, captaining the 1991–92 University Swimming team. Well qualified to be Head Kitten, Andy also participated in College rugby, rowing and the occasional mixed hockey and netball match.

Since the first observed and unaided swim in 1875, fewer than 1,800 swimmers have successfully completed solo swims across the 21 miles that separate Dover, England, from Cap Gris Nez in France. Andy is now one of them.

Although the distance between Dover and Cap Gris Nez is 21 miles as the crow flies, that proverbial crow does not have to contend with cold salty water, waves and the adverse tidal currents around the French coast. As a result the distance swum is much greater. It's a daunting task, but it is one that Andy undertook on 8 August 2017, and completed in an incredible time of 10 hours 28 minutes. So what exactly compelled him to take on such a challenge?

"When I was about 11 years old and just getting into swimming, someone said to me 'you're such a good swimmer, you'll swim the English Channel one day' and that thought had been with me ever since." Getting to the point where he dove into the water at Samphire Hoe beach near Dover was far from smooth sailing. He started training

more than two years prior to his tide window – fortuitously, it turned out – for along the way he required shoulder surgery, knee surgery and a total hip replacement, from which he had to recover and rehabilitate. Unfortunately, the hip replacement surgery went wrong and he required emergency revision surgery a few days later. With months lost he was only able to restart training in February 2017, with less than six months until his tide window. Speaking of these problems, Andy said:

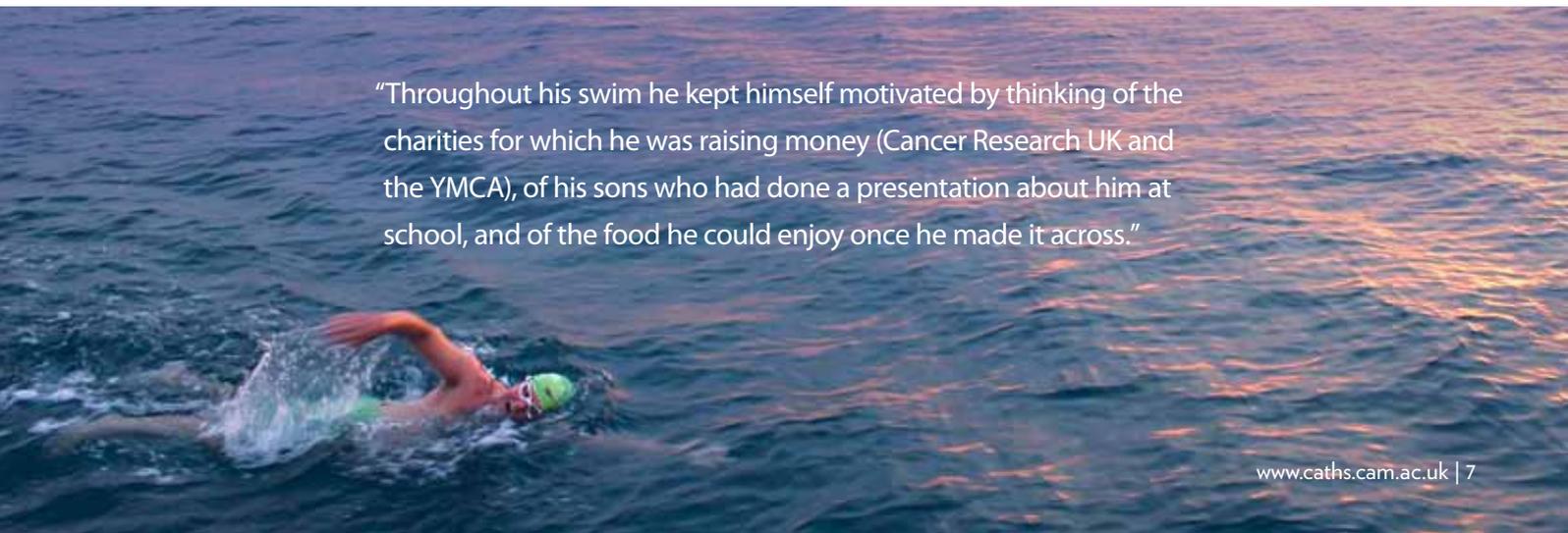
"It was a repeating cycle of some good news, then a new major setback. When I got back into the water I'd given up on any hope of getting a swiftish time – I just wanted to make it." Despite everything, Andy found himself diving into the water at exactly 00:02 on 8 August, and received his first of about 20 jellyfish stings just 15 minutes later. Throughout his swim he kept himself motivated by thinking of the charities for which he was raising money (Cancer Research UK and the YMCA), his young sons who had presented about the endeavor to their entire school, the children and adults



on his local swim team that he helps coach, and of the food and drink he could enjoy once he'd made it across. So how did it feel to finally touch the rocks at Cap Gris Nez?

"I was so focused on climbing out onto the slippery, seaweed covered boulders that there wasn't room for emotion at that point. The really emotional part was the last couple of kilometres. I missed the Cap, thought I was stuck in a gyre going backwards, hurting because I'd picked up the pace from mid Channel, and I was exactly where a friend's attempt had come to grief a few weeks previously. Then I saw the Pilot's crew preparing the inshore dinghy to escort me in. That's when I knew I was going to make it. Relief, pride, happiness, appreciation, sadness, exhaustion, energy, pain. It was a powerfully emotional 30 minutes that took a couple of days to process."

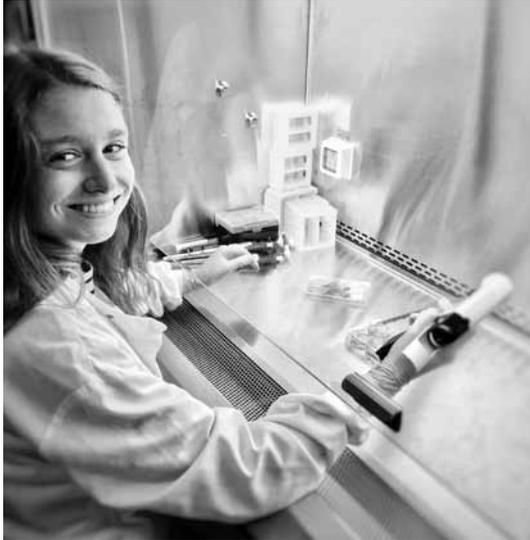
"Throughout his swim he kept himself motivated by thinking of the charities for which he was raising money (Cancer Research UK and the YMCA), of his sons who had done a presentation about him at school, and of the food he could enjoy once he made it across."



PhD PROFILES



FRANCES ST GEORGE-HYSLOP (2015)
Department of Archaeology



The neocortex is the principal brain region responsible for higher cognitive functions, including language, mathematical reasoning and abstract thought. These abilities are enhanced in humans, and thus differentiate humans from other primates. Several unique properties of the human neocortex could explain the increased cognitive abilities of *Homo sapiens*. These properties include the dramatic enlargement of the neocortex relative to the rest of the brain (more dramatic than in all other primates), as well as changes to the structure, complexity and organisation of neocortical cells. The genetic and molecular mechanisms responsible for human brain evolution are still poorly understood. The human genome is three billion base pairs in length and the challenge of sifting through billions of base pairs, to determine which sites have led to critical changes to the human neocortex, is complicated by the fact that most of the genome has no understood function. Furthermore, it is typically these enigmatic, “non-coding”, DNA regions that differ between humans and other primates.

In view of these challenges, I have set up a doctoral project that will study the role(s) of candidate brain evolution genes in an inter-disciplinary manner. I am using computational evolutionary genetics (supervised by Dr Toomas Kivisild, Department of Biological Anthropology) in tandem with experimental neurobiology (supervised by Dr Rick Livesey, Gurdon Institute), to identify candidate brain evolution genes and then study them functionally in stem cell-derived human and non-human primate forebrain neurons. This unique and tractable experimental system will allow me to characterise candidate genes during the very early stages in embryonic development, when differences between human and other primate brains first emerge. I am currently focussing on a candidate gene that may contribute to the greater inter-connectivity of neocortical neurons in the human brain relative to other primates.

Dendrites, which are cellular sub-structures involved in forming cell-to-cell connections (or “synapses”) in the brain, are longer and more branched in humans. This could allow more complex patterns of cellular connections and thus complex information processing, which in turn could be a mechanism for the evolution of human cognitive abilities. To test the idea that this candidate gene alters dendritic complexity in neocortical neurons, I am using a battery of techniques to knock out, overexpress, and swap the human and chimpanzee versions of the gene. These techniques include CRISPR-Cas9 genome engineering and lentivirus-mediated gene overexpression.

This project may shed light on the longstanding question of what makes us “human”. Crucially, investigations into the genetics of human brain evolution will also inform on the causes and potential treatments of human-specific disorders affecting the neocortex. These illnesses, including autism spectrum disorder and schizophrenia, affect millions of individuals across the globe, are hugely debilitating and cause life-long dependency.



MATTHEW ARRAN (2010)
Faculty of Mathematics



For my PhD, I study avalanches of grains on desert sand dunes. These avalanches are similar to those of other particles, such as cold, dry snow on mountains, cereals in grain silos, and pharmaceutical powders, and as part of my work I conduct laboratory experiments to predict how large and how regular we can expect such avalanches to be. Because grains can behave like a solid (as when sand supports its own weight in a pile) and like a fluid (as when flour is poured into a bowl), a universal mathematical model for avalanching remains elusive, and so I use such experiments to understand the most important mechanisms involved.

On sand dunes, the size of avalanches determines dunes’ internal structure, with important implications for desertification and for

the oil and gas industry. In each avalanche, small grains move to the base of the flowing layer, much as dust settles to the bottom of boxes of breakfast cereal. As a result, successive avalanches on the surface of the dune emplace strata in which small particles underlie larger particles, with the size of the strata determined by the size of the avalanches. I produce this stratification in the lab, and compare it with the strata in actual dunes in the Qatari desert, where my research team has demonstrated preferential permeation of water into the regions of small particles. This concentration of water allows bacterial life that may be able to stop dunes' encroachment on farms and infrastructure, but also complicates the effect of sand dunes on seismic surveys for oil and gas, the study of which forms the final part of my PhD.

As the above description implies, my project spans a number of disciplines. I'm based in the Faculty of Mathematics, where the motion of fluids has been studied since the days of Newton, but I often work with geologists, physicists and engineers, who bring important insights and approaches to the problem of grain flows. St Catharine's not only supports such collaboration through travel grants for conferences and fieldwork, but also fosters a diverse community of researchers that has led to unexpected connections and ideas.



Fishers land mud clams gathered from the mangrove at Peam Krasaop Fishing Port, Koh Kong Province, Cambodia

is particularly concerning under the current trend of mangrove destruction. My research attempts to better understand these links through investigation of fishing activities that directly or indirectly use mangrove habitat, the species that are caught and to measure the full importance of these products for fishing communities.

My research has taken me to Bali, Indonesia and Koh Kong Province, Cambodia where I have gathered this information first hand through interviews with fishers and their families. Fieldwork in remote mangrove forests has made for some tough experiences of research questions lost in translation, political tensions and bias, not to mention navigating life on Cambodia's floating villages. The experience has, however, provided insights into the diverse livelihoods associated with mangrove-fishing and a history of change in mangrove use through time, along with changing policy, environment and market booms and busts. Through these surveys I have developed a framework for identifying mangrove fishery actors in a local context, which I will next use as a basis for measuring income and subsistence derived by groups in the community from mangrove fishing.

I have also spent some time at the University of Washington, where I have developed my understanding of socio-ecological interactions at the School of Marine and Environmental Affairs, a visit made possible by the College Graduate Travel and Research Fund. My research highlights the multi-dimensionality and complexity of interactions between fishers and mangrove forests, further than currently represented in the peer-reviewed literature. As yet, mangrove fisheries are rarely featured as a management target and through my research I hope to encourage managers to acknowledge these complex links between mangroves and people through fishing as a first step in coastal decision making.



RACHEL SEARY (2015)
Department of Geography



Fishing communities across some of the world's poorest countries rely upon mangrove forests for their income and subsistence. Mangrove extent is in severe decline worldwide because of human activities such as land conversion for other uses, largely aquaculture and coastal development, risking the loss of important habitat for fish and fishing. The links between mangroves, the productivity of small-scale fisheries and the communities that use them are, however, poorly understood and often underrepresented in coastal management plans, which

WELLNESS *at St Catharine's*



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Caring for our mental health is incredibly complex, because at its heart are relationships and most of what we do involves relationships. Whether we eat alone or with others will affect how we feel about ourselves; whether we are at ease with those with whom we share our living and working spaces will affect how we feel about ourselves; whether we are placed in competitive or collaborative relationships with those around us will affect how we feel about ourselves. As a College we are increasingly attentive to the broader environment we offer our students and to who they are as whole people. Mental health isn't just about responding to a crisis, it is about trying to ensure that things don't get to crisis point. **DR DAVID NEAUM (2013)**, *Dean of Chapel*

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Prioritising a broad and balanced university experience has always been a key feature of student life at St Catharine's. Today, looking after "the whole student", particularly during stressful times, is receiving heightened national attention.

It is hard to avoid recent headlines around mental health and young people.

With a new and welcome openness in discussing depression, anxiety, loneliness and stress comes a responsibility across all higher education institutions for ensuring that students have access to appropriate and timely assistance. Studying at the University of Cambridge can be very demanding: in this high-pressure environment, many students experience significant levels of stress, particularly around exams. Other factors which can affect the mental health of our students include homesickness or isolation, and the lifestyle change of moving away for the first time. And of course students' home lives don't stop or get less complicated while they're at University. Here at St Catharine's, we recognise that good mental health is vital for students to

enjoy their time at university and realise their full potential while they are here.

At Cambridge, the Counselling Service is a joint enterprise between the University and Cambridge Colleges that provides a base level of support for the student population, offering both individual and group sessions, and providing help and advice for each College's pastoral team through a nominated liaison counsellor. On a College level, the nature of support takes a variety of forms: the team of College Tutors are students' first port of call for any issue to do with welfare; the College Nurse is a crucial source of support and advice; and the JCR Welfare Officers prioritise student wellbeing, organising a programme of events, particularly in exam period. The College community, including Directors of Studies, the Dean of Chapel and staff such

as Porters and members of the Housekeeping team, is also a natural support network.

Nearly 20 years ago, St Catharine's started working with a retained counsellor (in private practice) to provide support for our students; in the last few years, this has increased to three counsellors thanks to the Senior Tutor's Counselling Fund, made possible by a benefaction from Peter (1974) and Christina Dawson (2016). Through this scheme Tutors, Dean of Chapel, Directors of Studies, or College Nurse can ensure students who may need urgent, specialist, or long-term counselling get the help they need. The relationship goes further than this, with the counsellors visiting the College to give information and advice on a range of specific issues to our welfare team so that they are able to look out for those who may be struggling. The College has also hosted weekly intercollegiate sessions with the University Mindfulness Practitioner.

Speaking of the Senior Tutor's Counselling Fund, Dr Paul Hartle said that the Fund is "one of the most essential resources we have to provide support at times of urgent or critical need to our students and advice and expertise to our welfare team; many students have benefited from this provision over the years, and in some cases their successful completion of their degrees has depended on the support it has enabled us to give them".

The Acheson-Gray Sports Day

REMEMBERING CHARLES ACHESON-GRAY (1991)

Back in the 1930s St Catharine's College arranged an "old members" vs College cricket match, which remained for many years the only such sporting competition between alumni and current students. It wasn't until Charles Acheson-Gray (1991) graduated from College and pushed for tennis to be added to the schedule, and the all-weather hockey pitch was laid in 1995, that the event expanded into a recognisable "sports day".

Since then, every year in June, Members of St Catharine's come together to take part in the Acheson-Gray sports day, where College and alumni teams compete in a range of sports before heading back to College for a celebratory dinner. But the reason behind this day now goes beyond sporting prowess, as it is held in memory of Charles, who developed a serious depressive illness in the summer of 2000. Very sadly, Charles fatally succumbed to the illness in 2001.

From an early stage in his university life, Charles showed great skill in College sport. He was captain of the College lawn tennis team and played for the University second team, and he also learned the game of real tennis in which he gained a Half Blue, and he won his oar in the May Bumps of 1993. This day of sport in his name is a fitting tribute to his memory, and an opportunity for students to remember the importance of talking openly about the subject of mental health. Speaking of his son

in 2003, Patrick Acheson-Gray said that he looked forward to a day when depression would be openly discussed, "like any other common illness". Fifteen years later, it feels like society is starting to catch up.

2018 photography competition entries (above and below) by Emma Hide (2017)

Student Minds Catz

Student Minds is the UK's student mental health charity: within the University, Cambridge Student Minds has over 3,300 followers and encourages awareness of mental health issues and support between students.

Its website was set up by St Catharine's Jonny Hart (2014) and Carolyn Irvine (2015). Student Minds Catz is an active and supportive group: along with Lady Welland, the group set up the dog-walking scheme which has attracted national press coverage. So far, Toby the dog is coping well with his celebrity status.

Jonny was one of the founders of Student Minds Catz: "When I started at St Catharine's, I found myself in a supportive community that, despite flaws shared with other Cambridge Colleges, was striving hard to prioritise student wellbeing. Four years later, the College has come far; mental health workshops now run during freshers' week, Liberation Officers have been appointed to the JCR in a move to improve the equality of student representation at College level, and Student Minds Catz has been running a range of events and campaigns with the aim of improving mental health awareness and support. There is still much that can be done to improve engagement from students and staff in their own, and one another's, mental health. I believe this to be a positive thing, as there will always be students and staff at

Catz with the drive and initiative to continue the change I've seen in my time here; they need only be given the freedom to do so."

Carolyn, the current Student Minds Cambridge president added, "St Catharine's is leading the way in prioritising student welfare. The workshops, Liberation Officer positions, and the scheme with Toby the dog make me proud to be part of a College with such a community-feel where students support each other and are supported by everyone in the College, from the tutorial staff to the bedders and the porters".





THE HISTORY OF HOCKEY AT ST CATHARINE'S



© National Portrait Gallery

Peter Boizot (1950) by Barry Marsden

The first Varsity Hockey Match took place in 1890, and 24 years later St Catharine's produced its first hockey Blue in C.L. Corfield. He presumably made the most of the College's independent sports field, which opened in 1893 after a bequest from St Catharine's Fellow Edmund Yorke enabled the purchase and development of the current ground.

Returning from the First World War, Corfield won his second Blue in 1920. The interwar years saw only slim pickings for our hockey players, with just six Blues in the 20 years; but J.D. Wakeling bettered Corfield's feat by winning Blues in 1938, 1939, 1946 and 1947.

In the 1950s, the College won the Cuppers tournament twice and produced six Blues, including Derek Day who won a Bronze Medal for Team GB in the 1952 Helsinki Olympics. But Day was not, in fact, the College's first hockey Olympian, since A.Q. Khan (a Blue in 1951) had

represented Pakistan in the 1948 London Olympics. Another six Blues in the 1960s foreshadowed a "golden era" between 1968 and 1981, when the College won the Cup on nine occasions (and reached the final on a further four). The peak was in 1981, when St Catharine's had seven Blues, with Richard Dodds as the University Captain. Dodds also played internationally, winning a Bronze Medal in the 1984 Olympics (Los Angeles) and the College's first Olympic Gold Medal as Captain of the British team in 1988 (Seoul).

Meanwhile, women arrived at St Catharine's, and were not slow to show sporting





pro prowess. With only small numbers, their first hockey was in mixed teams, but by 1982 they had a full squad. Soon the women were supplying personnel to the University team and won their Cup on five occasions from 1984–90.

Until the 1980s all hockey was played on grass; in Cambridge the first Astroturf pitch was at Cambridge City HC on Coldham's Common, laid around 1990. Soon both Cambridge University and St Catharine's (on the initiative of, and the funding from, alumnus Peter Boizot (1950)) were planning all-weather surfaces.

The College pitch was declared open in November 1995, with the University's facilities following shortly thereafter.

Although the 1990s were not a successful period for College hockey, we still produced Blues in small numbers each year. Mixed hockey matches became popular, and from 2002, winning habits returned, leading to the second and current "golden age". The men won Cuppers from 2002–2007, as well as several league titles; the women won both Cup and league in 2002, 2005 and 2006; and together they won the Mixed Cup for the first time in 2008. Although

the number of full Blues, both men and women, produced by the College is now fewer, many College players represent the University's second and third teams, and grassroots support remains strong. Since 2009, the men have won Cuppers five times, the women seven times and the mixed team five times.

With "clean sweeps" of all three Cuppers competitions in 2011, 2012 and again in 2018, St Catharine's is nowadays synonymous with enjoyable and successful hockey.

DR CHRIS THORNE (1963)

"Meanwhile, women arrived at St Catharine's, and were not slow to show sporting prowess. With only small numbers, their first hockey was in mixed teams, but by 1982 they had a full team. Soon the women were supplying personnel to the University team and won their Cup on five occasions from 1984–90."



Vivi Way



REFLECTIONS: *Sherlock Library*

Prior to his appointment as Provost of King's College, Robert Woodlark had been custodian of his College's Library. His conviction that libraries are central to College life was clear in the foundation of St Catharine's, which he endowed with a library of over one hundred printed books and manuscripts. 1473 was an auspicious year for English bibliography. William Caxton printed the first book in English; Cambridge University Library compiled its second catalogue, listing 330 volumes. A new library almost one third of this size was a substantial investment – monetarily and philosophically – and a physical commitment to learning and scholarship.

The fortunes of our Library waxed and waned over the first half of the College's existence. The books given to us by Woodlark, described in detail in an early sixteenth-century register, suffered from neglect and misappropriation. By the time our next catalogue was set down, in 1633, not one of these books remained. With these disappearances went some of the College's intellectual vitality. The later catalogue shows little of the eclecticism or diversity of Woodlark's selection.

The gifts of Thomas Neale (1705), John Addenbrooke (1718) and Thomas Crosse (1728) resuscitated the collection. But it was the bequest of Thomas Sherlock (1761) which was to have the most transformative effect on the Library's breadth, embodiment and future development. Sherlock, Master (1714–19) and subsequently Bishop of Bangor (1728–34), Salisbury (1734–48) and London (1748–61), gave us two thousand books, money to build the library which now bears his name, and land to support a "library keeper" – a student in good standing who would help run the library, a tradition we maintain to this day.

By 1948, however, the Library had fallen into a state of disrepair. The collections continued to grow through the kindness of benefactors, but unsystematically, and out of step with educational changes across the Collegiate University. The *Society Magazine* lamented that for many students "the Library was little more than a name." By reconfiguring the Library as a war memorial that year, St Catharine's acknowledged that it was a place for people, not merely old books. The rebuilding of the north side of the College between 1965 and 1967 led to temporary displacement, and some structural

alterations – among other changes, the floor was raised, to accommodate the steel beams needed to re-enforce rotting oak joists. The building of the New – now Shakeshaft – Library in the mid-1980s led to a division of book stock, but gave us space to meet the reading needs of our students. Even today, the Sherlock Library continues to evolve. We've added wireless points and self-service borrowing facilities. But we've also replaced furniture and desk lamps to harmonize the aesthetic, toning down some of the intrusions of modernity. Libraries are sites of continuity, change, and memory. It's important that the Library be practical, up-to-date and comfortable, but also to speak to the College's heritage.

It has been my privilege, as Librarian since 2010, to maintain, improve, and equip the Sherlock Library for the current generation of undergraduates, postgraduates, Fellows and visiting scholars. Few things make me happier than to walk through the wonderful chaos of a library in full occupation. My office is in the Shakeshaft Library, in Chapel Court, but when I can, I like to work in the Sherlock. There are few better places to be on an early summer's morning, the light bright through the windows, the dust motes dancing across the shelves, the Library ready to teach you things you didn't know.

DR COLIN HIGGINS (2018)

Librarian

"One of my fondest memories is going up to the Library late at night when all was quiet and the other students had left. I could then get on with my library duties without disturbing anyone (one of my special skills remains the ability to back a soft back book in sticky back plastic!). The Library is a lovely space – airy and yet warm and intimate – and I loved the peace and tranquillity of being there."

JOANNA PAGE (1981), Former Sherlock Librarian

CELEBRATING *the* PERIODIC TABLE *at* ST CATHARINE'S

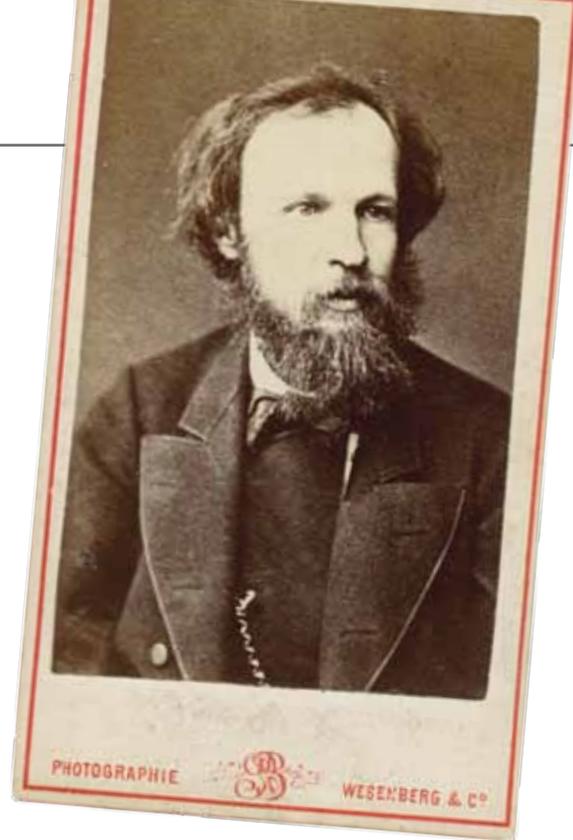
In the 19th century, a number of scientists were beginning to realise that a repeating pattern emerged when the elements were arranged according to their atomic weight.

The most successful of these attempts was published in 1869 by Russian chemist Dmitri Mendeleev, who organised the 63 then-known elements into groups with similar properties and left spaces for elements he thought must exist but had not yet been discovered. His famous table first appeared as a hastily-appended chart to his textbook, *Osnovy Khimii (Principles of Chemistry)*. He claimed to have envisioned the complete arrangement of the elements in a dream:

"I saw in a dream a table where all elements fell into place as required. Awakening, I immediately wrote it down on a piece of paper."

Nearly 150 years later, on what would have been Dmitri Mendeleev's 184th birthday, the College was able to acquire a first edition of the *Principles of Chemistry*, thanks to a generous donation from Fellow Commoners Peter (1974) and Christina Dawson (2016). Although written as a textbook, the two-volume publication book is very rare – ours may be the only copy in Britain of the important first edition. Bound in dark green leather, a handwritten note on the end-leaf indicates that the first owner was a woman, probably a student studying in St Petersburg in the early 1870s.

The United Nations has proclaimed 2019 as the International Year of the Periodic Table of Chemical Elements. Thanks to the generosity of our Members, St Catharine's will be able to play a key part in these celebrations. For four weeks from 9 March 2019, which will also coincide



"I saw in a dream a table where all elements fell into place as required. Awakening, I immediately wrote it down on a piece of paper."

DMITRI MENDELEEV

with the exceptionally popular University of Cambridge Science Festival, we will be displaying the *Principles of Chemistry* in College, along with several other important publications obtained as part of this gift. We will also be running a range of events and lectures around the subject of the periodic table, and we hope to see as many Members as possible return to the College to enjoy the celebrations with us.

Speaking of this new addition to our rare books collection, chemistry Fellow Dr Peter Wothers (1988) said, "The Periodic Table is one of the most iconic concepts in science. With this stunning gift of texts surrounding its early development, including Mendeleev's very first published table and the even rarer but lesser-known 'telluric screw' which preceded it by seven years, the College will not only play an important role in the celebration of its discovery and help inspire our future scientists, but will also provide a world-class resource for generations of future scholars."

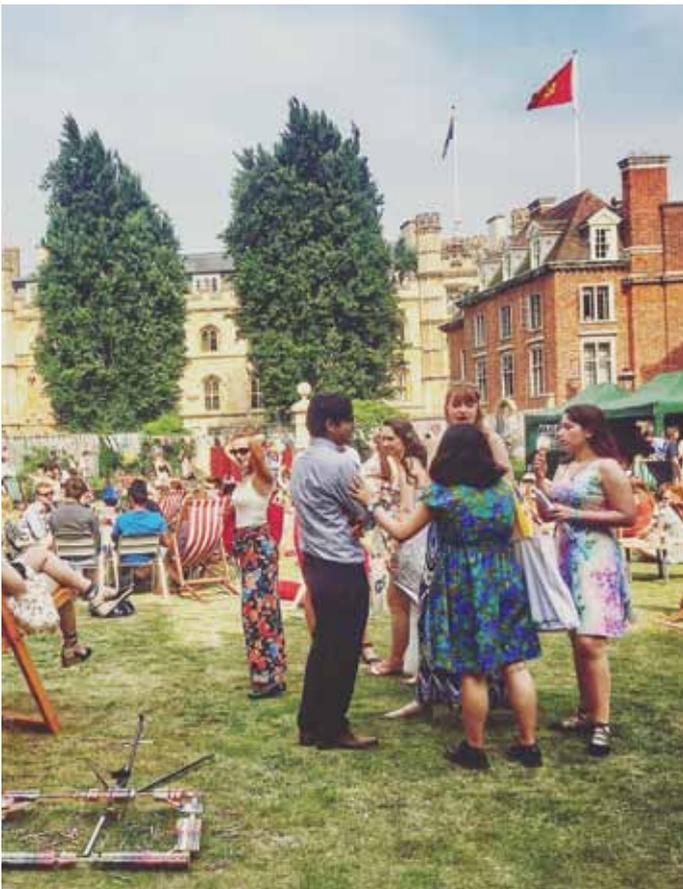


Dr Peter Wothers

COMING SOON:

Networking & Mentoring with *CatzConnect*

Early in 2019, the College will launch CatzConnect, which will serve as both a social network and e-mentoring platform designed for the use and benefit of all St Catharine's Members.



2018 photography competition entry by Frances St George-Hyslop (2015)

We know that our Members value the friendships formed during their time at St Catharine's, as well as connections made later in life with others from the College community. A great and growing number of alumni are interested in assisting current students through the sharing of their professional knowledge and experience. CatzConnect will enable all Members to make more of these opportunities.

We expect CatzConnect to be of ongoing interest and value to both alumni and students of the College. Providing careers advice to current students is an important and rewarding way of supporting St Catharine's, and we hope that this new service will further strengthen our community, to the benefit of all. CatzConnect will be free of charge to all users, with its implementation supported by the College's Annual Fund.

FEATURES & FUNCTIONS

Directory

Find and communicate with friends old and new, using a variety of filters and CatzConnect's messaging function.

Build Your Network

Find Members working in a particular industry or with the specific expertise you need. Users have the option of syncing their CatzConnect profile with their LinkedIn account, allowing for more detailed and beneficial search results.

Go Global

Whether you want to contact those living and working close to you, or you wish to communicate with Members elsewhere ahead of a business trip or vacation, CatzConnect's interactive map allows you to search anywhere in the world.

e-Mentoring

Anyone interested in offering or seeking career mentoring services will be able to do so with ease using CatzConnect's peer-to-peer mentoring platform. Those seeking a mentor can search using a range of filters, including professional experience, mentoring services offered, location and College interests. Those offering to mentor other Members will be able to set their preferences in relation to the services they wish to provide and the number of mentees with whom they want to work at any one time.

Control

Members will be asked to register for an account before using the site. Users control their level of engagement and choose what information to share with the rest of the CatzConnect community.

CatzConnect will launch in January 2019, at which time all Members will be contacted with details of how to register. If you have any immediate questions, please feel welcome to contact the Alumni and Development Office: alumni@caths.cam.ac.uk or +44 (0)1223 338337.

Alumni Events

1473 FOUNDATION GALA IN SINGAPORE

The 1473 Foundation Gala took place in April to recognise and celebrate major donor contributions to St Catharine's. Attended by distinguished guests, including the Singapore Committee, the weekend was an enjoyable opportunity to catch up with our Asia Pacific members and interwoven into proceedings was a showcase of local community initiatives.

The choir, generously funded by Dr John Endicott (1964), drew a large and appreciative crowd, starting the weekend's events with a wonderful performance at St Andrew's Cathedral, a church built in 1836 by the Scottish community. Gazetted as a national monument, the Cathedral is beautifully situated in a historic district, together with several cultural institutions, including the National Museum and School of the Arts.

In keeping with the spirit of giving to the local community, the Master, Professor Sir Mark Welland, gave library-goers in Singapore the unique opportunity to hear from him in person, by delivering a public lecture at the National Library on nanotechnology and healthcare challenges. It was a topic that the general public would not typically have access to, and Sir Mark's lecture saw a full house of 120 attendees, including students, professionals, and senior citizens. Those who attended listened with rapt attention as Sir Mark made a difficult topic simple to understand and appreciate.

Many of us benefited tremendously from our years at the College after we graduated and returned to our communities. When Kenneth Tan (1993) and I took on the organising of the 1473 dinner, we wanted to provide opportunities to local enterprises to show their talent and share their mission. As a result, the dinner event was also held at the National Library, which has been



2018 Asia Pacific 1473 Foundation Gala at the National Library Building. L-R: Mr Amil Shah (2003), Mrs Virginia Shah, Dr Rachel Leow (2006), Mr Tim Jones (2003), Mr Tin Wong (2000), Mr Mark Lim (1985) and Mr Chee Khern Ng

a community touchpoint for Singapore for many decades and thrives through the many helping hands of volunteers, such as our ushers for the night, who were student volunteers from St Joseph's Institution international. Event photography, sponsored by Chua Yi Wen (1998), has created a marvellous memory of the dinner, and door gifts, sponsored by Teng Ming Ying (1997), were made by Arts Faculty, a social enterprise that takes the art work of autistic teens and turns them into retail products. Flowers for the night were sponsored by Andrew Briski (1980) and were provided by Bloomback, a social enterprise that teaches women at risk how to arrange flowers as a means to mental wellbeing.

The evening was a wonderful occasion to meet up with friends who share the common bond of having had the Catz experience. I met an old friend, Tunku Farik (1984), whom I had not seen since graduation, and speaking with him reminded me of the special times in College as a student.

To cap off this special weekend, Honorary Fellow, Professor Cham Tao Soon (1965), hosted a lovely lunch at Peach Blossom restaurant, providing all of us with the chance to meet up with more Asia Pacific alumni.

Mrs Elaine Ng (1984)

10 YEARS ON (2007 MATRICULANDS)

Much has changed since the 2007 vintage strode through to Hall as fresh-faced undergrads 10 years ago. Dom, Head Porter for 25 years, has retired, a new Master is at the helm, we have all miraculously acquired MAs and are now permitted to enter formal hall gown-free.

And so it was that we found ourselves, on a crisp February evening, funnelling through the doors of the P'lodge once more to celebrate 10 years since matriculation. Ours was a year known for its love of a good time, so it was only fitting that we rose to the occasion with a record turn-out.

"Years melted away as old acquaintances and Fellows tucked into an outstanding dinner..."

Years melted away as old acquaintances and Fellows tucked into an outstanding dinner and enjoyed a stirring "welcome back" speech from Sir Mark Welland. Happy and sated, we all rolled into the new bar to re-live old-times, only to find that our papier-mâché mascot cat had been lost in the move. We hope to be invited back again so we can find it.

Mr Nick Hunter Ford (2007)

MEMBERS' REUNION 1979–81

The recent reunion of the classes of 1979–81 was ample testament to the reputation of St Catharine's as the "friendly College" of Cambridge and to the ease with which those friendships are rekindled even after more than three decades of absence. As some 140 finely attired Catzmen and women – a record attendance – squeezed into the splendid new McGrath centre to shelter from the driving rain while enjoying the College's pre-prandial hospitality, the animated conversation was punctuated only by cries of recognition and the increasingly frantic attempts of the official photographer to corral us into a sufficiently compact area to capture the event for posterity.

Dinner itself brought two further revelations: a fine example of concise and entertaining oratory in the form of Dr Paul Hartle's admirably rapid canter through five centuries of Catz history in the context of wider literary and world events, followed by a menu of more sophisticated cuisine than most of us could recall from the early '80s, with a fine "lamb two ways" main course being particularly memorable. The reordering of the gallery may have left the Hall with an acoustic less than ideal for capturing all of the nuances of conversation partners on the opposite side of the table, but this was no impediment for determined Catzfolk keen to assimilate up to 36 years of news in a couple of hours.

Following re-acquaintance with the noble tradition of the Catz cheeseboard, most gravitated to the new bar to test out the equally time-hallowed custom of outstaying the barman's welcome before retiring after a most enjoyable evening just as the clocks unhelpfully jumped forward an hour.

Dr Hartle's implied invitation to the 600th anniversary celebrations of the College's foundation in 2073 may perhaps prove a little optimistic for most of us, but we look forward to a rather earlier "return match" in due course. In the meantime thanks are due to Deborah Loveluck and all who contributed to the organisation of a highly successful event.

Mr Paul Baumann (1981)

INTERNATIONAL WOMEN'S DAY

It's March 10th 2018 and I am rushing to meet with Esther Raffell who kindly invited me to speak at the International Women's Day dinner. As I make my way to the Porters' Lodge, I find myself stopping and staring at the College front gates and experiencing a mental recall. I am transported back to October 1990 and a chilly winter's morning when we convened at this very spot for my matriculation photo.

Twenty-eight years later, I am back at Catz and being warmly welcomed by Esther, Julia and other students attending the dinner. As I entered the McGrath Centre, I was quickly struck by the vibrancy and energy of conversations around women's issues but also by the diversity of the group present.

The students had asked me to give a brief after dinner speech, and share my experiences of working for UN agencies, and reflect upon the challenges of working in environments where there are few female leaders. My talk focused on the need to avoid 'hero' stereotypes and to acknowledge the importance of



The portraits of men in Hall were covered up with portraits of the women of St Catharine's, including this photo of our Fellow, Dr Sriya Iyer (2000), by Hebe Hunter Gordon (2015)

demonstrating authenticity, integrity and resilience as we progress through life. All life journeys have their ups and downs. In my experience, if you a female you are more likely to experience more bumps in the road and higher hills to climb. Men and women must come together to change minds, opportunities and confront the stark statistics. The World Economic Forum's 2017 Global Gender Report estimated that gender parity is over 200 years away whilst the UN 'State of the World' reports remind us that those most vulnerable to poverty

and violence are women. Meta research, brought alive by the life experiences of women, provides a powerful narrative as to why we must continue to 'Press for Progress'.

Some of the highlights of the evening included meeting Promise Knight, seeing the portraits in Main Hall replaced with images of leading ladies and reconnecting with a College that has a very special place in my heart.

Professor Daniella Tilbury (1990)

SPORTS RESULTS

RUGBY

In December, Cambridge won both the men's and women's Rugby Varsity Match. St Catharine's was represented in both teams – by **Henry King (2015)** for the men and **Jenny Orriss (2015)**, **Lucy Gimson (2013)** and **Emma Pierce (2016)** for the women.

ROWING

On the Tideway in March, the Women's Blue Boat was coxed to victory by St Catharine's student **Sophie Shapter (2017)**.

SAILING

St Catharine's alumna **Fiona Hampshire (2009)** was named amateur sailor of the year at the 2018 Yacht & Yachting Awards. **Jemima Lawson (2015)**, was part of the winning Blue team at the Top Gun event in Farmoor in February, and won silver in the BUSA Team Racing Championships finals in April.

ATHLETICS

Although Cambridge were beaten by the Dark Blues overall at Varsity, there were some standout performances by St Catharine's members. **Phillip Crout (2013)** won the 5,000m and **Chris Kneale-Jones (2017)** won the discus, and both achieved Blues. **Chloe Billingham (2016)** won the pole vault, with **Becky Martin (2013)** coming second, and PBs were achieved by **Matthew Harris (2016)** and **Lawrence Hopkins (2016)** in the 400m hurdles and **Josh Maiklem (2017)** in the javelin.

CYCLING

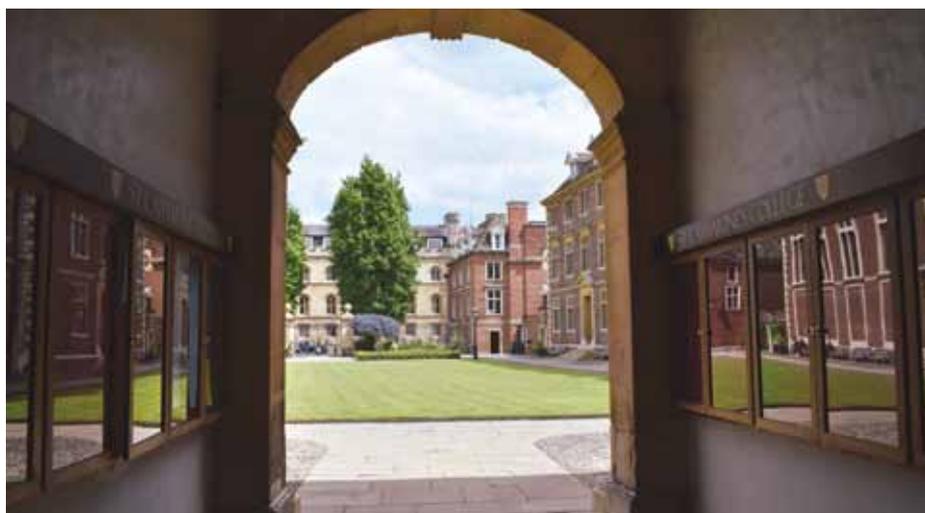
Toby Cowell (2016) was part of a University Cycling Team with Jack Brown and Ali Golby that set a club record for three riders at the Norwich Open 25 mile race. They set a new best combined time of 2:27:24 (previously 2:30:31).

FENCING

Ethan Ren (2015) was in the winning men's Fencing Varsity 1st team, winning his own sabre match 45–44.

HOCKEY

It was a triple victory at the hockey Cuppers finals, with St Catharine's winning the men's, women's and mixed matches.



2017 photography competition entry by Xue Wang (2011)

UPCOMING EVENTS

2018

SATURDAY 15 SEPTEMBER
Members' Reunion 1985–87

SATURDAY 22 – SUNDAY 23 SEPTEMBER
College Society Annual Reunion and Dinner

TUESDAY 25 SEPTEMBER
St Catharine's in Edinburgh

THURSDAY 4 OCTOBER
St Catharine's in Rome

2019

FRIDAY 8 FEBRUARY
10 Years On (2008 Matriculands)

SATURDAY 30 MARCH
Members' Reunion 1956–62

If you are thinking of holding an event, why not consider the wide range of facilities available at St Catharine's College?

Contact the Conference Office at conference@caths.cam.ac.uk or on + 44 (0)1223 338323.

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COVER IMAGE
Photograph of Amaara Dudhia (2014) and Matt Green (2016) at the front gate, taken by Elodie Giuge



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