

MAGDALENE

MATTERS

Spring/Summer 2021 | issue 51

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Droplets in the Air

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The New Library

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Discovering
the Hole in the
Ozone Layer



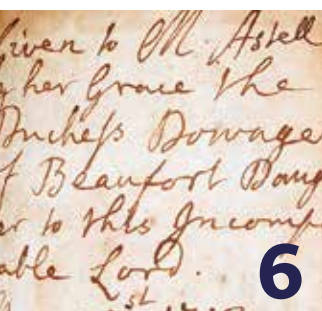
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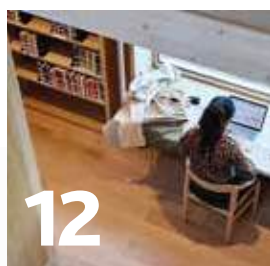
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Welcome

Dear Members,

The past year has been like no other for all of us. Loss, fear and uncertainty have become part of our collective lives in ways few of us could have imaged. The impact on all areas of College life has been significant, and our students and staff have sometimes struggled but always worked exceedingly hard to make life, as it is, work.

The New Library, the focus of our fundraising efforts for so long, was quietly finished and even more quietly opened in Lent Term. A maximum of 60 students at any one time can use the Library at the moment due to the current social distancing requirements. You will, I hope, have read elsewhere how wonderful the New Library is, a building that has surpassed all expectations and has already settled into the landscape of the Fellows' Garden, the vision of both the College and the architects beautifully realised and most generously funded by you, our Members and Friends. We are very much looking forward to the day when we can celebrate this magnificent achievement together in person. I know from talking to students who delight in using the new study space how much they value this truly wonderful addition to the College estate.

We plan to celebrate our collective achievement and the end of the campaign in spring 2022, but for now, the *Future Foundations* Campaign continues for its final year and, we hope, for a final flourish. The whirlwind of the global events programme organised for the first three years of the campaign has unfortunately not been replicated this last year and is unlikely to be possible for most of this year, but we are getting ready for the end sprint! We are delighted with and grateful for the warm, generous and perhaps most importantly, the kind response from our Members and Friends to our appeal for help particularly during the pandemic.

This issue of *Magdalene Matters* will be published both digitally and, albeit in reduced numbers, in hard copy. Please do let us know if you prefer to receive it by post or electronically so you can enjoy this and future issues in your preferred format. You will find a gift form enclosed with the newsletter or a link to a gift form in the digital issue of *Magdalene Matters*. This offers you the opportunity to assist the College in looking after our students or growing the Unrestricted Fund to allow the Senior Bursar to address the areas of greatest need. Every gift however modest makes a difference and is very much appreciated; thank you.

Keep well, stay safe and keep in touch. We post regular updates on our website www.magd.cam.ac.uk.

CORINNE LLOYD

Editor and Director of Development

Magdalene Matters is published by the Alumni and Development Office. For further information or if you would like to submit content for future issues please contact the Communications Officer, Mr Matthew Moon, or the Editor, Mrs Corinne Lloyd.

The views expressed in this newsletter do not necessarily represent the views of Magdalene College Cambridge.

Cover photo taken by Mr Matthew Moon.

The Year that Really was a First

by Sir Christopher Greenwood, Master

It is a custom for a new Master to write some brief reflections on their first year in office. Reflecting on my first year, one thing is clear – whatever I thought it would be like bore no resemblance to reality. It is said that “all you need to do to make the gods laugh is to tell them your plans”. If that is true, then they must be convulsed with laughter on Olympus. On election in 2019 I made all kinds of plans to meet everyone in College in my first two terms and looked forward to the meetings and formal dinners, student societies and evening talks, sports events and reunions. COVID-19 put a stop to almost all of that. Apart from a few scaled-down events in the first half of Michaelmas, life has had to be lived online and any real world conversation has taken place from behind masks – a challenge to my hearing and my ability to recognize half of a face.

Moreover, there has been the knowledge that students, staff and Fellows have faced great difficulties and, in many cases, real hardship during the months in which any form of normal social contact has been prohibited. COVID-19 restrictions have not been the only occasion for sadness. The deaths of Professor John Field (1964) and Dr Richard Luckett (1978) have robbed us of two Fellows of great distinction with decades of service to Magdalene, who were also personal friends from my days as a Fellow.

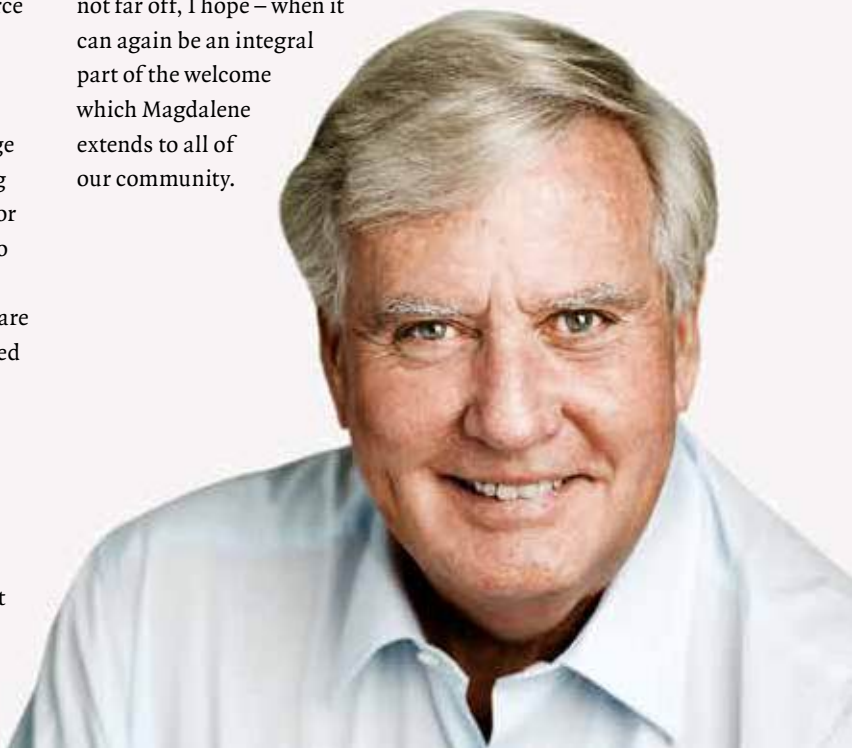
Yet, in spite of everything, what really matters is that Magdalene has survived, even triumphed. It has been a source of real pride to see how many students have made the best of the circumstances forced upon them, how well they have coped with the stress and loneliness of the lockdown and the disappointment of missing out on so much of Cambridge life. Our staff have kept the College going, whether juggling working from home with home-schooling young children, or coping with the unprecedented demands made of those who soldiered on in College. The whole Fellowship has worked ceaselessly to maintain standards of teaching, of pastoral care and of good governance. Alumni and Fellows have responded with characteristic generosity to an appeal for donations to help meet the greatly increased demands on bursary and hardship funds.

The restrictions imposed because of COVID-19 have also brought about some remarkable innovations as everyone sought to adapt to the new circumstances. The development

by one Fellow of online classes in dissection for her medical students has proved a great success. The Development Office has arranged numerous online events which have been enjoyed by audiences from several continents, enabling us to reach a much wider group of alumni and friends than could attend in person functions. The outdoor celebration of Easter has been just one instance of the life of the Chapel being maintained despite the lockdown.

While we have so far been unable to hold the long awaited formal opening of our magnificent New Library, the building is now open to students with whom it has been a great success. Not only a wonderful resource, it has added to the physical beauty of the College and is a building of which we, and future generations, can justifiably be proud. Meanwhile both our library and the University libraries have responded to the fact that many students could not return to Cambridge by a massive expansion of online facilities and other aids to remote learning. Just as the building has been praised (by *the Times'* architecture correspondent) for its harmony with the Pepys Building, so the services offered there combine the traditional library with meeting new needs.

The first year has not been anything like what we expected but Sue and I are delighted to be back at Magdalene. The Lodge has become home for us both and we look forward to the day – not far off, I hope – when it can again be an integral part of the welcome which Magdalene extends to all of our community.





Dr Sara Caputo (2019)

Dr Sara Caputo, Lumley Research Fellow in History, won four academic prizes during Lent Term 2021.

First, she was awarded the Prince Consort and Thirlwall Prize and Seeley Medal for a historical doctoral dissertation completed at Cambridge in 2019–20. Her dissertation also won the British Commission for Maritime History's Boydell & Brewer Prize for the best PhD dissertation in maritime history completed in the UK in the academic year 2019–20. This work, now in book manuscript form, is under review with an academic press and was featured in the last edition of *Magdalene Matters*.

The third prize, awarded by the Institute of *Historical Research* in London, was the international Sir Julian Corbett Prize in Modern Naval History. She received it for her article on the service of foreign quarterdeck officers in the Royal Navy of the American and French Wars (1775–1815). This piece is due to appear in *Historical Research*, the Institute's flagship journal.

Lastly, Dr Caputo won this year's Earl of Rosebery Prize, awarded by the Scottish History Society for the best transcription with scholarly apparatus of manuscript sources in Scottish history. Her entry, entitled *Scottish Young Gentlemen in the Royal Navy, 1791–1818*, formed the core of another book proposal, which is now under consideration with the SHS. This would be a scholarly edition of previously unknown manuscript sources, speaking to the histories of late childhood, British integration, Scottish identity, and Scottish cross-border and imperial networks of patronage in relation to naval service.

On all her success Dr Caputo commented: "It feels strange and sobering to have so much to celebrate in times like these. Any one of these prizes would make someone's year, and I can't help but think that I have been hogging more than my fair share of joy. However, the genuine happiness of family, friends, and mentors upon hearing the repeated good news is what will leave the most lasting impression on me, once the dust is settled. I am determined to treat these recognitions as reminders to think of others even when the world tries to make it all about me, and to be immensely grateful for all the help, support, and caring by which I am constantly surrounded."



Professor Brendan Burchell (1990)

Research led by Professor Burchell on the UK labour market, the happiness and wellbeing of workers and

the benefits of part-time work has featured heavily in the press throughout lockdown with features this year in *The Guardian*, *The Times*, *The Sunday Times*, *The Daily Mail*, *The Economist* and elsewhere. His team tracked the wellbeing and working hours of 5,000 people over the past 10 years, discovering that those whose hours of work were reduced during the pandemic or had been furloughed maintained the same levels of wellbeing at the employees who continued to work the same hours as before, but those who lost their jobs completely were the most likely to experience symptoms of anxiety or depression. The press emphasised how the Chancellor, the Rt Hon Rishi Sunak MP, drew on the research when revising the furlough scheme, allowing employees to work part-time and still be supported with government funding.



Dr Cecilia Brassett (2009)

Congratulations to Dr Brassett, Fellow and Director of Studies in Medical Sciences, who

was awarded the Symington Memorial Prize in January 2021. The Prize is awarded biennially by the Academic Council of Queen's University on the recommendation of the Council of Anatomical Society for contributions to the advancement of anatomy.



Professor James Raven FBA (1990)

Professor Raven, Senior Research Fellow in History, has won an award from the Research Council of

Norway for *The Invention of the Lottery Fantasy: A Transmedial History of European Lotteries*.

This, with his fellow collaborators, will fund five workshops (two at Magdalene) and a three-year PhD grant, a three-year postdoctoral grant, funding for extensive archival work and research visits.

Professor Raven has also been elected as President of the Bibliographical Society, the oldest bibliographical society in the world. Professor Raven is the fourth historian elected as President since 1892.



Professor Emma Rothschild CMG (2010)

Professor Rothschild, Honorary Professor of History and Economics, has published her new book *An Infinite History: The Story of a Family in France over Three Centuries*. It is an innovative history of deep social and economic changes

in France, told through the story of a single extended family across five generations.



Dr Ali Meghji (2011)

Dr Meghji's, Fellow and Director of Studies in Human, Social, and Political Sciences, latest book *Decolonizing Sociology* is now available for purchase. The book explores why, and how, sociology needs to be decolonised. It analyses

how sociology was integral in reproducing the colonial order, as dominant sociologists constructed theories either assuming or proving the supposed barbarity and backwardness of colonised people.



Dr Annja Neumann (2014)

Dr Neumann, Senior Research Fellow in German, chaired the annual Schröder Lecture, titled *From the Classics to Covid: Theatre Practice Today*. Participants had the opportunity to participate in a conversation with Thomas

Ostermeier, a leading German theatre director, undertaking ground-breaking work at the Schaubühne Berlin.



Ms Lisa Kreusser (2019)

Ms Kreusser, Junior Research Fellow, has been awarded the Reinhart Heinrich Doctoral Thesis Award for the best doctoral thesis in the area of Mathematical and Theoretical Biology. Her thesis, *Anisotropic nonlinear PDE models and dynamical*

systems in biology, deals with the analysis and numerical simulation of anisotropic nonlinear PDEs and dynamical systems in biology.



Professor Franklin Aigbirhio (2020)

Professor Aigbirhio, Senior Research Fellow, has been elected as a Fellow of the Academy of Medical Sciences for his exceptional contribution to the advancement of medical science through innovative research discoveries

and translating scientific developments into benefits for patients and the wider society.



Dr Hannah M Critchlow (2003)

Congratulations to Dr Critchlow, Science Outreach Fellow, on her recent publication *The Science of Fate*, which has been listed as a *Sunday Times* Top Ten Bestseller. *The Science of Fate* revolutionises our understanding of who

we are and empowers us to help shape a better future for ourselves and the world.



Dr Philippa Steele (2010)

Throughout my project CREWS (Contexts of and Relations between Early Writing Systems), sponsored by the European

Research Council, we have been very keen to bring our research on ancient writing to new audiences. After all, ancient writing has always had an almost mystical appeal, with its arcane-looking shapes and symbols – and, as our outreach activities have always shown us, there is nothing children like better than trying to write in an ancient code, especially when it also involves paints, papyrus or modelling clay!

In 2020, I was awarded a grant from the University's School of Arts and Humanities Impact Fund to develop sets of free teaching materials, entitled *Writing in the Ancient World*. The aim was to create adaptable new content that could be used by primary school teachers and home-schoolers (all the more relevant since repeated COVID-19 lockdowns began last year) to teach children about ancient writing systems and their historical background. Each teaching pack includes information for teachers and children on a particular writing system (Greek alphabet, Linear B, Phoenician alphabet, Alphabetic cuneiform and Egyptian hieroglyphs), as well as a cartoon and advice on how to run a play session, and there is also a set of short videos and worksheets available on our website. We have had excellent feedback and been thrilled to receive messages from people around the world telling us about how they are using the materials in the classroom and at home, and how helpful they are in supporting wider areas of education such as developing children's literacy and teaching multicultural history. It is always a joy to think that the research I am working on will reach beyond the circle of academics I spend most of my time with, and might bring someone some enjoyment!

Further information and resource packs can be downloaded from: www.crewsproject.wordpress.com/writing-in-the-ancient-world.

MARY ASTELL'S BOOKS

by Miss Catherine Sutherland, Deputy Pepys Librarian



Mary Astell's scientific notes in Old Library H.14.18, *Les principes de la philosophie* by Descartes, plate 4.

During the past year, members of library staff at Magdalene have adapted to new ways of working in the face of adversity, and much has been achieved. Even during its current period of closure, the profile of the Old Library has been raised significantly due to the unearthing of Mary Astell's donation of books.

We have recently discovered that Mary Astell (1666-1731), a philosopher, author and advocate of women's education, was the donor of several books to the Old Library. It is a mystery as to exactly how this donation came about, but it likely involved the

Master of the College in Astell's later life, Daniel Waterland – a bibliophile and a fan of Astell's work. Just before the arrival of her books, the College had taken receipt of the Pepys Library in 1724. The published College history notes that Magdalene "was now the reasonably proud possessor of one of the world's great libraries, and had been shamed into taking its own original humble library provision more seriously." Under Waterland's stewardship of the College a number of benefactions for scholarships had been made, so encouraging book donations such as Astell's to bolster the Old Library would have been a likely interest of his too.

Unfortunately, no documentary evidence survives proving that Waterland played an active part in Astell's decision to donate books to Magdalene. However, the Old Library does have in its collection a 17th century donations register, which library staff have been mining for information about other book donors, the majority of whom had close connections to the College.

The donations register (Old Library F.4.33) was begun in 1629 and was kept up until the beginning of the 18th century, recording books and manuscripts donated by generous benefactors. It opens with a hand-painted tree to represent the College, illuminated with gold lettering and decoration. The names of the first recorded donors are painted on the bottom leaves of the tree, with the apparent intention of adding further names as the register grew, but this practice seems to have been abandoned early on.

Richard Hollinworth, or Hollingworth (1623), was a prominent clergyman in Manchester, and wrote the first history of the city. Amongst other items, he donated a very important set of Bibles to Magdalene, printed by Christopher Plantin in Antwerp, known as the 'Plantin Polyglot'.

Barnabas Goche (1582) became Master of Magdalene in 1604 and was also the MP for the University from 1621–1624. He donated several printed books and also a medieval manuscript – an early 13th century psalter, possibly produced in Bruges.

Lady Margaret Cavendish (1623–1673) is a rare female entrant in the register. She donated works of her own authorship and is known to have done the same at other Colleges.

The majority of the books recorded in the register are still in the Old Library today. Using the register, we have now added donor information to our online, searchable shelf-list for academic and general interest.

Rhythms for Life

by The Reverend Sarah Atkins (2002), Chaplain

The Chaplain has the best job in Magdalene. As well as the Chapel and pastoral support, I get to promote the College's communal health. If we're honest, this usually means getting people together and giving them something to eat. But it's been over a year now since Evensong was sung in Chapel, or Wednesday crowds came for curry or hot chocolate, and C. S. Lewis' chair by the fire in A6, has sat empty.

For many students and staff this year has brought grief, exhaustion, mental and physical ill-health: strains of many kinds. Those caring for others, or working in medicine, research, or charities, have faced acute needs. All of us have had searching times of alienation from things we counted on for our flourishing. There has also been the small matter of studying for a degree on a screen, away from the human community which Magdalene insists is the best environment for an enquiring life of the mind.

All this means that we have missed the rites of passage that help us understand ourselves. These are not only milestones for our memories, they are way-markers for our sense of who we are becoming. So, I take my hat off to everyone who cares for our students but also to our students themselves. Because, despite everything, they have found ways to keep communal spirit alive by marking time.

Sometimes that has been simply marking the beginning of each new week (on a Thursday of course). We've also had the MCR's virtual charity marathon and the 1988 Club's Cook Along for International Women's Day; Week 5 packs of sweets; book groups and campaigns; and the famous fortnightly quizzes, with photos of Magdalene's brightest in their babygros. Something of the rhythm of Term has been maintained by the flair and grit of our students.

I have found that pastoral care has so often turned on this hunger for rhythm

too. Walking the riverbank or chatting online, we have reflected on helpful patterns for life and made time to mark the moments that have mattered and the ones we have missed.

So although graphs of infection and vaccination became our collective story this year, marking time in Magdalene has reminded us that there are other tales to tell and other rhythms to keep. For Chapel, this means maintaining a centuries-long pattern of music and prayer. Strikingly, this has been especially important this year to people of all faiths and none. We have gathered for worship and community online, in Hall, in Cripps Auditorium and choral services in 'exile' in the gloriously generous acoustic of St Giles's Church. Best of all, we have met outside: I treasure the Easter Day services in the Fellows' Garden, where the birds joined in as the sun rose, and swans flew

low over the river. At Christmas, we had our own little midwinter spring of hope when at Midnight Mass we sang *O Come all ye faithful* in First Court.

In the centre of all this, the physical space of Chapel has remained a lodging for those who could enter its patient atmosphere, entering its 55th decade this year. Why not make your own virtual moment there by catching up with services from Chapel online?

Within the shapeless stretches of loss and limbo, the regular rhythms have helped us to keep time with a different story and a larger hope. However unclear the way ahead, it is possible to walk in step with the sort of life that sustains hope, love, even joy. GARDE TA FOY!

www.facebook.com/magdalenecollegechapelcambridge



SCIENCE AND LOSS IN THE TIME OF COVID-19

by Dr Walid Khaled (2014), Fellow, Group Leader, Wellcome-MRC Stem Cell Institute
& Lecturer, Department of Pharmacology

The Loss


It's the 15 March 2021 and I am on only my second flight since the start of the pandemic, almost exactly 1 year ago coming back to the UK. As with almost everything we have done over the last 12 months this flight was out of necessity rather than by choice. Just before Christmas (22 Dec 2020) I received the phone call that millions around the world dreaded: both my parents (in their late 70s) had tested positive for COVID-19. Up to this point all the pandemic meant to me personally was facemasks, hand gels, home-schooling and disruption to work and daily life as we know it. Over the weeks that followed, the consequences of the pandemic reached new painful levels for my family. My mother fought the virus hard at home and managed to recover without needing to go to hospital although she was pretty much in bed for two weeks feeling exhausted. For my father, his health deteriorated fairly quickly and, on 7 January, he was admitted to ICU. I spoke to him on the phone for the last time on 12 January. The disease hit him hard and he was struggling to speak that day from being so out of breath. I tried to ring him later that day, but he did not pick up for us to later find out that he had been sedated and intubated to allow for mechanical ventilation of the lung. Unfortunately, this would turn out to be the last phone call he made to any us, his family. Over the days that followed, the fleeting reports we were getting from the excellent team of doctors at ICU were very bleak. It became clear that I needed to be home with my family, which meant taking a plane for the first time since the start of the pandemic. I arrived home on 30 January and, sadly, my father passed away on 1 February 2021, suffering from multiple organ failure.

The Science

Ironically, the passing of my father came at a turning point for my research team through this pandemic. I lead a research group at the Department of Pharmacology and Wellcome-MRC Stem Cell Institute which focuses on understanding the early steps of cancer development. The last 12 months have been disruptive to our research

beyond imagination. As the country was heading for its first lockdown back in March 2020, my team was frantically running around preparing for the lab to shut down. It was clear that the University would not be able to keep all research labs open if there was a national lockdown. We abruptly stopped all our research experiments and collected whatever data that could be salvaged, not knowing when we will be returning to the lab again. To put this in some context, some of our experiments can last up to 18 months, so stopping at any point means you will have to start all over again - and that's if you are lucky to have sufficient time and funds left on the research grants! It's also important to explain that most members of my team are only there for three or four years, either as PhD students or as postdoctoral research fellows. Losing such a significant amount of time to complete their research studies and/or thesis could have a detrimental impact on the next steps of their career. To make matters more uncertain, I was also part-way through the application process to renew my six-year research funding from Cancer Research UK (CRUK), due to end in October 2020.

I suspect all those in managerial or supervisory roles in March 2020 faced similar problems. On the one hand, I was trying to reassure my team that everything would be fine while at the same time I wasn't sure how and when things would be fine again. And here comes one of the big positives to emerge from the pandemic: team spirit. When the lab shut down, we quickly moved to a virtual world and set up daily catch-up sessions on Teams and Zoom to make sure everyone was okay. I have to admit I found a great sense of comfort in these daily catch-up sessions and, on many occasions, would turn up because I needed reassurance that everything would be okay. Everyone in the team stepped up and we formed a strong support network for each other, accepting that we would all have some good days and some (very) bad days. At moments things looked very bleak and in fact lots of our planned research experiments had to be shelved and we were forced to think about our science a bit more and plan different approaches to tackle the problems at hand.

A full-page background image showing a scientist in a blue lab coat, hairnet, and gloves, looking through a microscope. The scene is brightly lit, likely from a window in the background.

If you take a snapshot of what we have achieved in the last 12 months, you would never in a million years think we had a tough and difficult year. The lab has managed to publish several important papers, including in *Nature* and *Nature Communications*. Both were highlighted by the national media, including the *Guardian*¹ and *BBC News*². CRUK has renewed its generous support for my lab by awarding me a six-year grant to continue our work on understanding the early steps of tumour development. Moreover, in the last 12 months three of my PhD students have completed their studies and successfully defended their theses. Looking back I am so proud of the team and how they managed to pull through during this tough period to get us to this point.

The Future

Despite the difficult year, both personally and professionally, I am grateful for how things have turned out. However painful the last year has been, we have all grown quite significantly as individuals and I am hopeful that, going forward, we can build our research again and take it to new heights – hopefully making Father proud in the process.

1. www.theguardian.com/science/2020/jul/01/new-study-of-naked-mole-rats-cancer-resistance-sparks-row

2. www.youtube.com/watch?v=AnkeEnWoXAI



FROM FUEL DROPLETS IN JET ENGINES TO Pathogen-carrying Droplets in the Air

by Dr Pedro Magalhães de Oliveira (2015), College Research Associate

At around the time COVID-19 first hit the UK, I was at Heathrow Airport waiting to board a long-haul flight. I remember the uncertainty caused by the new virus in the air, manifested on passengers' faces as we saw that those headed to Asia were all wearing masks. Little did I know, I would soon discover why wearing such a simple piece of protective equipment was of vital importance to contain the spread of the virus, as I embarked on a much more important journey: shifting part of my research from aerospace propulsion to the transmission of the SARS-CoV-2 virus.

There are fundamental principles that help us understand the behaviour of a droplet, or particle, in an airflow. George Gabriel Stokes (1819–1903), a Fellow at Pembroke College and one of the fathers of modern fluid mechanics, defined some of the physical laws that describe the motion of flows and the motion of particles as they experience a surrounding viscous flow. While large droplets fall through the air, if a particle is

small and light enough, it will closely follow the surrounding fluid due to the drag it experiences. Before COVID-19, I applied such concepts to my daily research to predict, for example, how fuel droplets impact the propagation of a flame in an aeroengine combustor. When I first learnt that the SARS-CoV-2 virus was likely transmitted through droplets and that important outbreaks were taking place indoors, I immediately knew what that meant: “if these droplets are small enough, the virus can remain suspended in air for hours!” I remember telling my partner Maria as we read one of the first articles out in the *New York Times*, hungry for information as most people at the time.

It turns out that humans exhale droplets of different sizes during a sneeze, a cough, talking and even during breathing. These are produced in different parts of the body: large droplets in the mouth, medium to fine droplets in the vocal cords, and really fine droplets are produced deep in the lungs,

in the bronchioles. Depending on where a pathogen lives, it populates droplets produced in that region, being carried by those during respiratory activity. The interaction of airflows and droplets of a range of sizes, from a thousand times smaller than bread flour (baking being another great finding of quarantine) to a millimetre, is a problem that is the bread and butter of jet engine research carried out by me and colleagues at the Hopkinson Lab, at the Department of Engineering. As University activities shifted to remote, we immediately realised the importance of airborne transmission, and that we had all the tools necessary to tackle it.

We started by addressing the ‘droplet versus aerosol transmission’ debate. At the time, the World Health Organization and governments resisted the possibility, while the media and scientists around the world started raising the likelihood of airborne transmission of the virus – that is, transmission through those really fine droplets, or aerosols, that are subject to the motion of airflows. In our first paper, published in the *Proceedings of the Royal Society A*, we modelled the evaporation of a respiratory droplet, a process that is critical to the motion of a droplet. As the droplet shrinks, its momentum and the drag it experiences vary until it reaches a finite size, becoming a tiny crystal. The evaporation process and the time a droplet takes to reach the floor due to gravity is controlled by many factors such as, for example, the concentration of components as proteins and salts found in the fluid, which varies depending on its origin in the respiratory tract.

Through canonical fluids problems, we demonstrated that the airborne transmission of SARS-CoV-2 is possible both at short range (for example, speaking to an infectious person two metres away) and at long range (breathing infectious particles accumulated in a room long after they are emitted). We found this by using published measurements of the concentration of viral RNA present in respiratory fluids, modelling the exhalation of the virus in droplets all the way to its deposition on surfaces. We showed that an infectious person speaking for a prolonged time poses as much of a threat to others as a cough, as speaking produces very fine droplets that remain suspended for over an hour. To mitigate transmission, we called attention to a combined approach comprising of: the use of adequate masks to filter such fine virus-laden particles; social distancing to allow infectious particles to be diluted in air before being inhaled by a healthy person; and ventilation, so that the particles are removed from an indoor space.

Now, a year after the pandemic started, it is interesting to note that, although scientific evidence accumulates in piles suggesting airborne is the most likely route of transmission, there is still a lack of hard, experimental confirmation that there is active virus ‘living’ in particles of a specific, measured size. The virus, researchers believe,

is too sensitive to undergo current sampling techniques, hence the experimental confirmation of active virus in a specific particle of known micrometric size may not be possible in the near future. However, scientists have been able to successfully quantify the concentration of gene copies of virus (traces of virus) in air samples. This, along with the conditions under which known indoor outbreaks have occurred, is enough evidence to face COVID-19 as an airborne disease. In critical moments, health authorities must not wait long before acting based on worst-case scenarios. Scientists should be heard and trusted even if based only on their experience and informed judgement, without waiting for indisputable proof, subject to terrible world-scale consequences otherwise.

Surprised with our findings, we felt the need to reach out to the public. Using the framework put forward in the paper, we developed a tool available at www.airborne.cam to evaluate the risk associated with COVID-19 transmission through aerosols in indoor spaces. With the tool, the user can set the conditions of a given room, such as its size, ventilation conditions, and occupancy, which are then used to calculate the risk of infection for a healthy individual exposed to the infectious viral particles in the air over some time. This way, people can understand which practices can mitigate viral transmission in their daily activities, focusing on the reduction of risk with the use of different masks or reduced occupancy, for example. Our work is the second most read paper in *Proceedings A*, and the tool reached 100,000 users globally. It has been used in the design of products for aircrafts, in the reopening of concert halls, and has been a key part of the University’s risk assessment protocol, helping Colleges and departments to operate safely.

Despite all efforts, there is still a great deal to learn about the COVID-19 pandemic. For example, the reasons why there is little trust in scientists and great reluctance from governments to take decisions based on scientific evidence? Why was the West so slow in adopting a mask-wearing policy, despite seeing people’s immediate reaction in Asian countries, who very quickly adopted medical-grade masks? And how did wearing a simple piece of protective equipment become a political statement? I hope these questions will be answered by our students in the near future.



Dr Pedro Magalhães de Oliveira (2015) is a College Research Associate. In his PhD, he investigated the “birth” of spray flames, addressing questions related to the use of alternative fuels in aviation and the clean and safe operation of aeroengines. His work received the da Vinci Medal, the Clean Sky Award, and two national awards.

I remember stepping into First Court on a sunlit afternoon and falling in love with the tapestry of old brickwork that surrounds the space. The various buildings are united by the shared use of a single material. The walls have been repaired many times by different hands and bricks have been painstakingly pieced together like expert darning. It produces a patchwork of shifting tones and patinas caught in the slanting light.

The Design

Buildings are good at showing us the depth of time. We see similar processes carried out, one over the other, through decades and centuries. I wondered how we might enter into this world with a new building. We would have to wait until our work had been softened by the labour of many hands, but it is important to start well.

Our site is beside the old Pepys Library overlooking the Fellows' Garden. It is approached from Second Court, through a little

doorway and out under an old yew tree. From this shady corner you sense the presence of the river opening out at the edge of the lawn. We wanted to make the building into a journey that gradually rose up towards the light. On the way up there would be rooms, galleries and places to perch with a book. At the top, there would be views out over the lawn towards the water. We wanted to create a variety of ways for someone to situate themselves depending on inclination. You might sit in a grand hall, a small room or tuck yourself into a tiny private niche.

THE NEW LIBRARY

"NOT ONLY DO WE HAVE AN ASTONISHING BUILDING BUT A BUILDING THAT IS ALREADY WORKING FOR OUR STUDENTS"

Professor Tom Spencer, Chairman of Cloverleaf



For us, good architecture plays variety of experience against underlying order so as to produce harmony. The New Library is based upon a logical latticework of interrelated elements. A regular grid of brick chimneys supports the floors and bookstacks and it carries warm air up to ventilate the building. Between each stack there is a roof lantern bringing light down into the spaces below: air rising and light falling. This array produces a natural hierarchy with narrow zones for circulation and wide zones for rooms. It creates an underlying pattern of warp and weft that we hope can be understood intuitively by people using the building.

We worked carefully with our builders to find a variety of bricks that would match the beauty of the older stock in the College. The different colour and patina of each brick relates to where it was

stacked in the kilns that fired the original clay, from black to pink. We asked the craftsmen to sort these bricks to produce a natural texture in the finished walls. The quality of the bricklaying is a testament to the skill of the builders. They know that the care they take will be admired by other craftsmen long in the future and that it connects them to the anonymous hands that created the luminous tapestry that welcomed me when I stepped into First Court.

Professor Niall McLaughlin, Architect

The Construction

From the very outset, it was clear that the New Library building was a project with which we had to be involved, and one which would require us to push every boundary of construction on a technical and logistical basis.

The building design was predominantly based around exposed brick, timber (structural and furniture) and stone structures that would require continual protection throughout the construction phases and demanded excellent attention to detail throughout.

The first obstacle we encountered was the need for the highest quality brickwork required to complement the neighbouring 17th century listed Pepys Building. Initially, this involved sourcing the correct bricks to match the Pepys Library in colour and size to ensure a true likeness. This was achieved by sourcing four different choices of individual handmade facing bricks (Thirlby, Black Thirlby, Hamblton and Lindum) to create the mix now known as 'the Magdalene mix'.

After spending so long creating the perfect bricks for the building, we knew we had to build on our efforts to ensure that the right bricklayers would lay them. To achieve this, we combed our extensive archive of master bricklayers from the past 30 years and drew up our 'dream team' of bricklayers who had a





proven track record of conservation and restoration brickwork and with whom we had worked closely in the past. Following the completion of this roster, we held a succession of interviews with each bricklayer to explain the history of the original Pepys Library and the importance of the quality of the brickwork having to match the existing building. This process also allowed us to discuss the design in more detail and to highlight the individuality of this building, to ensure that the team was well-briefed in terms of the task that lay ahead. It also meant

that bricklayers were aware of the size of the challenge ahead and allowed them to develop a real sense of pride for what they would be creating working with each other to attain our overall goal.

The course of action worked well and the overall quality achieved is evident throughout the New Library, with its wealth of exposed brickwork.

A similar system was followed for the carpentry elements of the building for the roof structures, flooring, and furniture

(much of which was constructed on site) and the results are truly breathtaking. Indeed, *The Times* published an article entitled *Ten of the coolest new buildings to gawp at this year*, with the New Library building at number seven, something we are all very proud of!

Mr Steve Nugent,
Cocksedge Building Contractors

MAGDALENE REGULAR: a new font for The New Library

by Dr Marcus Waithe (2010),
Fellow and College Librarian

An Honorary Fellow of the College, Mrs Lida Lopes Cardozo Kindersley MBE (2015), is the country's foremost letter cutter, as well as a calligrapher and type designer. Her workshop on Cambridge's Victoria Road has cut inscriptions for some of the UK's most prestigious institutions, including the British Library, the Wellcome Collection, St Paul's Cathedral, the Glasgow Gallery of Modern Art, and the John Rylands Library. Most recently, Lida and her apprentices have been commissioned to cut the Stone of Principal Benefactors for our New Library building, and they are fitting donor recognition signs in a specially designed typeface known as 'Magdalene Regular'.



Painting The Stone of Principal Benefactors.

ABCDEFGHIJKLMNOPQRSTUVWXYZ
0123456789

Inside The New Library

by Mr Tom Sykes, Deputy College Librarian

As I write this, a week into opening, I can hear the busy sounds of around 50 Magdalene students gathering their belongings together to leave for lunch. The COVID-19 pandemic has meant a more low-key and restricted opening than we had hoped for, but it is a wonderful feeling to finally see the New Library with even a fraction of the potential numbers of students that it can accommodate.

I became Deputy Librarian at Magdalene in 2016, so for me it has been five years of running one library whilst planning for a second! Working with colleagues across the College and with the architects and contractors in order to help realise this remarkable building, and to ensure it meets the needs of modern student life, has been a wonderful experience. Walking around the New Library I am reminded daily of the hundreds of discussions and decisions, big and small, taken over those years that I and the Library team were involved with.

Perhaps the most important task was planning the move, not just the logistics of physically moving the books but how to make a collection that had lived so long in one place make sense in a completely new environment? The move was a chance to bring related disciplines together, and to build in expansion space for future growth. I am pleased to say that after countless hours spent measuring shelves, poring over floor plans and joinery specifications, the books fitted as planned and do not look out of place in their grand new surroundings.

A lot of planning has gone into making this an exceptional place to study. It is not simply the number of study spaces, making us one of the largest College libraries in Cambridge, but the thought and attention that has gone into providing varied types of space and seating. When fully open we will have group desks, single desks in cubby holes, relaxed seating for reading and a social space to take a break in and to refill a Magdalene KeepCup with



The New Library, Central Reading Room.

a hot drink. Wayfinding and catalogue signage has been designed to make navigating a large building straightforward. The New Library is also an accessible building, with automated doors, lifts and disabled toilets removing barriers to facilities.

Now we are in the New Library, we begin the work of fulfilling its potential and embedding a library service that supports the whole College community. There is of course ongoing work in improving our physical collection and in supporting our students in accessing this and the digital resources that have become so important over the last year. The new facilities will only enhance that work. However, a truly great library does more than just provide resources; it delivers inspiration and motivation and in this new building I expect that we have a space that will do just that.



The New Library, individual study space.



The New Library, group work room.



DISCOVERING THE HOLE IN THE OZONE LAYER

by Dr Jonathan Shanklin (1973)

Magdalene played a little-known part in the discovery of the Antarctic ozone hole.

In 1973, the College accepted me as a Natural Sciences student and my courses at the Cavendish and tuition at Magdalene instilled in me the skills of an experimental physicist. I had originally wanted to be an astronomer, but my maths wasn't good enough. Teaching was an option; I learnt the techniques doing a PGCE and these proved useful later on. An advert for the British Antarctic Survey (BAS) for a physicist looked interesting as I ticked all the boxes, so I applied and was delighted to be offered the post.

As with many jobs, the early years were relatively mundane. The post was based in Cambridge and essentially involved quality control of various meteorological data coming back from the Antarctic. These included measurements of energy from the Sun, and ozone and weather observations. The weather observations were difficult to check without experience of the conditions and this was one lever for requesting a visit to the Antarctic. The main lever, however, was a replacement ozone measuring instrument that BAS was purchasing and which I was to take to the Antarctic to compare against the existing instrument.

I departed Cambridge in December 1981, spent Christmas in the Falklands, New Year at South Georgia and then on to Halley Research Station in January. The comparison went well and confirmed that the existing instrument was operating correctly. I then managed to persuade BAS that I should visit the other Antarctic stations, so was still there in March 1982. The Falklands War prolonged my return journey and we eventually docked in Southampton just before the *Queen Elizabeth 2* sailed. She covered in just ten days the distance that had taken us a month of steady steaming!

Launching a weather balloon.



Roped up and standing at the edge of the "Halloween Crack", a growing crevasse that necessitated the move of Halley station and eventually led to the break-out of a large iceberg.

One of the key reasons for wanting to check on the ozone measurements was that they seemed to be getting lower in the spring. The question was whether this was a real phenomenon or an instrumental or computational artefact. The fact that the two instruments agreed and that the decline only occurred during the Antarctic spring left a change in the atmosphere as the most likely cause for the effect. At the time there had been concern that the release of chlorofluorocarbons (CFCs, which were used in fridges and aerosol cans) into the atmosphere might affect the ozone layer. The prevailing scientific theory suggested that this depletion would occur over the tropics at very high altitude. My bosses, Joe Farman and Brian Gardener, added a possible theoretical explanation for the observations and the paper was published in *Nature* in 1985.

Our discovery that changes linked to CFCs were taking place over Antarctica rather upset the apple cart! NASA arranged for flights of a U2 spy-plane converted for research to take measurements between South America and the Antarctic Peninsula. These clearly showed that chlorine chemistry was the key factor in the ozone depletion, permitting destruction at heights of around 18km. The unusual conditions of the Antarctic winter allow temperatures to drop so low that clouds can form in the middle of the ozone layer – when illuminated by the sun they show iridescent colours leading to their common name of mother-of-pearl Clouds. What nobody had realised was that chemistry could then take place on the cloud surfaces which, when combined with spring sunshine, would destroy ozone at about 1% per day. Eventually as the atmosphere warms in late spring, the clouds disappear and ozone depletion ceases until the cycle repeats the following winter.

The discovery led to the signing of the Montreal Protocol, the international treaty that prohibits the release into the atmosphere of substances that can affect the ozone layer. All the UN Member States have now signed the Treaty (a unique achievement) and it is working: the amount of the controlled substances in the atmosphere is going down. There is still



Using the Dobson ozone spectrophotometer, with Halley station in the background.

monitoring work do be done – evidence shows that there has been illegal manufacture of CFCs – and new substances that can affect the ozone layer are always being designed.

One early recognition of the discovery was an appearance on Blue Peter and the award of a green badge! This was one of many occasions when my teaching skills proved useful, and they are still used in outreach talks in schools and other public events. A link with the Cavendish continues with their Physics at Work event every September, providing outreach to around 2,000 school pupils. The Institute of Physics awarded me their Charles Chree Medal in 2000 and, in 2005, I was proud to receive the Polar Medal from Her Majesty at Buckingham Palace. A very unusual honour came in 2020, when the Antarctic Place Names Committee named the Shanklin Glacier at the south end of the Antarctic Peninsula.

I formally retired from the British Antarctic Survey in 2012, but remained as an Emeritus Fellow. Much to my delight, I was called out of retirement in 2018 to go to Halley as a meteorological observer for my 20th Antarctic journey. As with my first trip, this also involved making manual ozone observations and comparing them with an instrument that was to run automatically through the polar winter. That instrument is running today and giving information about what has been the largest ozone hole for over a decade. This does not imply a failure of the Montreal Protocol, just that weather conditions at altitude play a significant part in the formation of the ozone hole.

Outside my professional career, I continued with my astronomical interests, directing amateur observations of comets for the British Astronomical Association and serving as Senior Treasurer of the University Astronomical Society. More recently, I have resumed an interest in botany, begun when I was at primary school and am now the Botanical Society Vice-county Recorder for Cambridgeshire. In this role, I visited the College grounds throughout 2019 and a report on the results appears in the College Magazine.

ORDER ON THE COURT

by Mr Stephen Parry (1964)

I first became interested in electronics at school; when I was 15, my physics teacher brought me 100 transistors and said, "What can we make with these?". We built a calculator that could add and multiply two numbers together. This experience inspired me into a lifetime of electronics development. The business I started 40 years ago now provides the scoring and associated services to the top tennis events worldwide.

I studied Natural Sciences at Magdalene in 1964 and went on to be one of the first cohort of Cambridge students studying Computer Science. It was an exciting time as it was the only computer-related degree in the country.

On completion of my education, my uncle told me I'd never make any money in computing; it being the 60s, there was simply no computing industry as such. He suggested I become an accountant, so I took his advice and went to work at an accountancy firm in London.

In my first week I was sent out to do an audit. In my second week there was no accounting work so I asked if I could spend my time in the consulting department. It was there that realised that consulting was the area for me; it enabled me to use what I had learned at Magdalene to communicate complex technological solutions clearly.

After five years I moved on to work in the car industry, using my computing and consulting skills. In 1979, Booz Allen (now Strategy&) recruited me to their Paris office. I started out focusing on manufacturing strategies, or what's now called supply chain management. My role was to make sure that a company's computer systems were aligned with its business needs. I quickly learned that every problem has a solution and, with a good team in place, you can solve problems previously thought of as impossible.

In the early 80s, microcomputers were becoming more available. While chatting with colleagues, the IT boss suggested the perfect microcomputer application: designing, building and installing a scoring system for the 1982 French Tennis Open Championships. This was certainly more ambitious than anything I or the team had tried before and it also required me to think about basic strategy questions like "What's the competition?". Up until this point tennis scoring had been done manually with the human eye, blackboards, chalk and a walkie-talkie.

The challenge had been set, but where would we begin and was it even possible? There was no internet, no Google, no online references, no existing products to reverse engineer, no software to emulate circuit boards prior to being built, but we were also the only bidders for the project so we had nothing to lose.



Umpires ready for Wimbledon qualifying.

© KATE TANNIW www.flickr.com/photos/43555660@N00/9118444337



Don't mess with Eva! Umpire Eva Asderaki at Wimbledon.

We developed a system where the umpire, sat up on his chair, could push a button each time the player scored a point and which in real time automatically sent the scores from different courts onto a single screen.

This was cutting edge technology at the time and success at the French Open led to contracts to create similar systems for Wimbledon, the Australian Open, and ultimately the whole of professional tennis.

As computing power and camera technology advanced so did our products. We partnered with a company using radar to measure the speed and trajectory of golf and cricket balls. By combining our two technologies it was now possible to know the score, ball position and speed in any part of the court at any time whilst feeding all of the data to any device connected to the internet.

At the 2001 Queen's Club tournament our tennis radars measuring serve speed were used for the first time and by 2002 all Association of Tennis Professionals and Women's Tennis Association events worldwide started using our FlightScope Tennis management and scoring software.

With the big data revolution our products took on a new lease of life; real time ball tracking now plays a key role in the training regimes of professional athletes, helping them to grow, develop and perfect their skills via a data driven approach.

BE THE BEST. THINK GLOBAL, KNOW YOUR COMPETITORS, AND CERTAINLY, KNOW HOW TO USE A TEAM AND ITS RESOURCES.

We have recently been awarded a US patent for a new highly accurate ball-tracking process which is under review for certification by the International Tennis Federation. Hopefully, soon you'll hear that the current Hawk-Eye challenge system has been replaced by FlightScope.

So when you are next watching tennis on TV and see the scoreboard at the bottom of your screen or the speed of serve statistic pop up, it is in small part down to a Member of the Magdalene community.



Editor's Note: Since this article was written, FlightScope Services was purchased by IMG Media, the sports betting data arm of global media giant IMG.



Today's chair umpire device.

Magdalene Boat Club & the Lockdown

by Mr Sam Vosper (2014), Captain of Boats



Following a brief return to the river in the first half of the Michaelmas Term, the Magdalene Boat Club (MBC) has embraced remote operations under the national lockdowns. While our fitness goals remained largely unchanged, our means of getting there were vastly different. For many, training required taking to the road by bike or by foot and trading the familiar callused hand for blisters elsewhere. Those of us who remained in College have been able to run or cycle in pairs, which has been a great way to keep the team interacting. Many have been sporting the highly prized MBC cycling kit, including our boatman Paul. Our head coach Susannah has even managed to induct some of the bravest rowers into the realm of wild winter swimming.

Others were fortunate (or unfortunate) enough to borrow an ergometer from the boat house gym. For these individuals the whirr of the ergo fan has become a comforting background sound which now punctuates their days. Innovation has been key for those new to having an ergo at home. Finding the best training conditions has led to some setting up their machines in bedrooms, garages, gardens or even kitchens. Refuelling midway through a workout has never been easier.

The Club has also tried to maintain some interaction online through Zoom training sessions. These have involved both

ergo sessions and bodyweight circuits, which have frequently featured guest appearances from house pets. The online group training sessions have offered a nice avenue for social interaction and also some level of training accountability. Knowing that your teammates are training hard is always a useful motivator. The online training spreadsheets have also helped to foster a healthy commitment to the training plans and have allowed the coaches to keep track of everyone's activity. Collectively the Club has racked up thousands of kilometres of running, cycling and erging over the lockdowns.

All this training was put to good use by our teams that participated in the virtual Pembroke Regatta, which was conducted as a remote running relay event. Our two women's and two men's teams each consisted of four members who raced 1.1km every day for four days. We saw some impressive times submitted with all teams bettering their opposition on more than one occasion. Some members of MBC have also undertaken their own sporting challenges for charity. We are very proud of Lina and Liz who both completed half marathons to raise funds for the Cambridge Rape Crisis Centre.

As of April, the MBC has returned to the river and are looking forward to some good vibes out on the water and some sunny competition in the coming term!



MCR UPDATE

by Mr James Ball (2019), MCR President

There was limited opportunity for in person events over the past couple of terms so most activities have been hosted online.



In March, the MCR's Cambridge Virtual Half Marathon team, captained by the tireless Roan Runge (2020), Women and Non-binary Officer, raised an impressive £3,283 for the Cambridge Rape Crisis Centre. This followed the MCR Christmas Running Challenge that was won by Delia Burgess (2020) who completed the 60km distance in 5 days and 12 hours.

The MCR committee arranged for the delivery of Easter hampers containing a range of treats so that MCR Members could enjoy festivities in their households. To celebrate LGBT+ History Month in February, we invited Gay Liberation Front (GLF) activist and *Gay News* founder, Andrew Lumsden, to present on *Queer History from 1885 to the Modern Day*.

In January, we ran a photography competition with the theme of 'community'. Diarmid Xu's (2020) wonderful entry, *Friends atop a hill* (pictured), was crowned as the winner.

Social Officers, Diarmid Xu (2020) and Jasper Sanger (2020), instituted an MCR Fun Fund that subsidised fun household activities for MCR Members including the acquisition of board games and BBQs. We also hosted a semi-regular feminist reading group and quiz nights.

"Friends atop a hill: Silhouettes of people taking photos at Castle Hill on a peaceful winter's evening. During these moments of calm and serenity, one can forget the worries of life and the pandemic. Through our shadows we see that we are all equal; no matter our ethnicity, beliefs or gender, we are all just people."



Access and Outreach when you have to stay in

by Ms Tess Leyland, Schools Liaison Officer

In true 2021 style, this year our biennial Magdalene Liverpool Conference for Year 12 students moved online. The beauty of the city's skyline was replaced by panelists' spare rooms, home offices, and the Zoom waiting room; but our participants' enthusiasm remained the same.

It has been a strange year for all of us. But, I must admit, starting as Magdalene's Schools Liaison Officer in January and leaping straight into organising a virtual conference was quite a change of pace. The flagship Outreach event has historically taken place in the centre of Liverpool, but this year we all dialled in from home.

The virtual offering was designed to replicate the main aims of the in-person event: to provide high quality information to Year 12 students, support them to consider university, and demystify the University of Cambridge and what it's like to be a Cambridge student.

The first event was a live Q&A with current students; over 200 participants logged in to take part and over 100 questions were submitted. Our undergraduates were superb, giving warm, thoughtful and honest reflections on their university experience and applying.

Later in the week, we tried something new, inviting parents and guardians of Key Stage 4 students to attend our first 'Parents' Evening'. The panelists discussed everything from the application process to pastoral support, and, as one attendee commented, "succeeded in debunking quite a few myths about the university". We were blown away by the reception and engagement at both events, and simply didn't have enough time to answer all the questions that participants fired our way.

Our Fellows were keen to take part and supplied a series of recorded taster lectures for attendees to give them an impression of what ideas they could be engaging with at university. Subjects varied from *How do wings work?* to *Linguistic diversity in Roman Britain*, certainly catering for a broad range of interests.

Of all the events I've run since starting at Magdalene, the Liverpool Event is by far the closest to my heart. I was brought up in the area, and attended the event myself when it was hosted at Goodison Park. When I told my friends about my new role, many of them remembered attending too, which I believe shows the impact of the initiative. Looking over the initial feedback for 2021, the reception has been wonderful, with one participant commenting: "it was a really helpful and made me want to achieve bigger things in life". I do hope they remember the experience as fondly as I do.

Looking ahead, I'm working to harness the reach online provision allows us. The College has launched its Application Support Series to support Year 12 students who are considering applying to competitive universities and we will soon be announcing plans for our 2021 Access Residential. There are plenty of events in the pipeline to encourage the brightest and best to apply to Magdalene.



If you'd like to learn more about our work to support widening participation then please do get in touch:
access@magd.cam.ac.uk

NOVELIST, LAWYER, CASSANDRA

by Miss Christina Sweeney-Baird (2012)

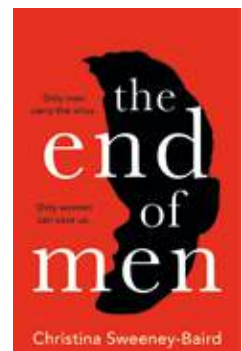
I never intended to write a novel about a pandemic just before a real-life pandemic spread across the world. More than one person has called me Cassandra. My debut novel, *The End of Men*, explores the impact of a virus, to which women are immune, that kills ninety per cent of the world's men. It's told through a multitude of perspectives, following characters as they try to keep their sons, husbands, families and friends safe and rebuild the world after almost half of the population dies.

My publishers, Harper Collins, bought the book in early February 2020, just before the world completely changed. To say it's been surreal gauging the distance between the speculative pandemic I wrote (with a virus started by a pangolin no less) and reality is an understatement. As I write my second novel, which is also speculative, I find myself hoping that I'm not, in fact, a witch and that the imaginary dystopia I'm creating won't come to pass in two years' time. Once is a coincidence, but if it happens twice, I think I'll have to hang up my fiction-writing hat.

I studied Law at Magdalene between 2012 and 2015 and loved my degree. I now work as a corporate litigation lawyer at Slaughter and May and have balanced writing with my legal career since I started working on my first novel (which was never published) shortly after starting my training contract in September 2016. People often ask me how I balance the two careers and the honest answer is that I don't know any different. As a child and teenager, I trained seriously to be a classical harpist

alongside my school work, and then as an undergraduate I combined my degree with lots of extra-curricular activities. Being a student at Cambridge is intense in the best way – there's so much so pack into eight-week terms – and the workload prepared me to balance two careers. Speculative fiction also requires creative problem-solving which my law degree prepared me for; you're asking a 'What if?' question and applying it to every aspect of society. In *The End of Men*, that meant looking at how the sudden absence of men would affect different aspects of society. How would hospitals change? What would Parliament look like with a majority of women? What would change in the UK and the US and Singapore and Canada and so many other countries? What would stay the same?

The End of Men was published in April in the UK and will be published in 17 other countries which is a dream come true. I always kept my writing secret until I started to find some success in competitions with *The End of Men* in 2018. For anyone wanting to write a novel or pursue a creative career, I always say to treat it like a job before anyone else does. Commit to it, work silently and consistently and hopefully it'll pay off.



Upcoming Events

10 September

Reunion Dinner (1960–1967)

17 September

Reunion Dinner (1968–1971)

24 September

Reunion Dinner (1975–1978)

22 October

**London Dinner at the Oxford
and Cambridge Club**

6 November

San Francisco Dinner

8 November

Seattle Dinner

10 November

Washington DC Dinner

12 November

Annual New York Dinner

13 November

Boston Dinner

3 December

Annual Carol Concert

11 December

**Benefactors' Event: Festive
drinks with the Master**

Please note that the above events may be subject to change due to COVID-19 government guidance.

Additional events may be added; please check www.magd.cam.ac.uk/events and look out for updated listings in *Magdalene eMatters*. If you are interested in attending an event or would like additional information please email events@magd.cam.ac.uk.

