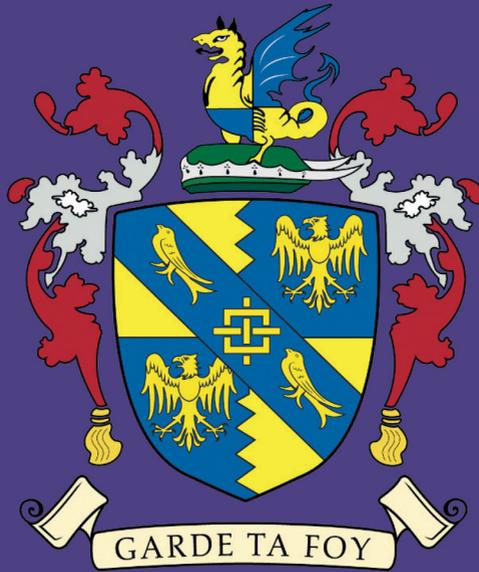


MAGDALENE COLLEGE MAGAZINE



No 65

2020–21

MAGDALENE COLLEGE

The Fellowship, October 2021

THE GOVERNING BODY

- 2020 MASTER: Sir Christopher Greenwood, GBE, CMG, QC, MA, LLB
(1978: Fellow)
- 1990 PRESIDENT: B J Burchell, MA and PhD (Warwick), *Joint Director of Studies in Human, Social, and Political Sciences, and Professor in the Social Sciences*
- 1984 J R Patterson, MA, PhD, *Praelector, Director of Studies in Classics and USL in Ancient History*
- 1987 M E J Hughes, MA, PhD, *Pepys Librarian, Director of Studies and University Affiliated Lecturer in English*
- 1989 T Spencer, MA, PhD, *Director of Studies in Geography and Professor of Coastal Dynamics*
- 1990 S Martin, MA, PhD, *Senior Tutor, Admissions Tutor (Undergraduates), Joint Director of Studies and University Affiliated Lecturer in Mathematics*
- 1993 T N Harper, MA, PhD, *College Lecturer in History and Professor of Southeast Asian History (1990: Research Fellow)*
- 1994 N G Jones, MA, LLM, PhD, *Director of Studies in Law (Tripos) and Reader in English Legal History*
- 1995 H Babinsky, MA and PhD (Cranfield), *Tutorial Advisor (Undergraduates), Joint Director of Studies in Engineering and Professor of Aerodynamics*
- 1996 P Dupree, MA, PhD, *Tutor for Postgraduate Students, Joint Director of Studies in Natural Sciences and Professor of Biochemistry*
- 1998 S K F Stoddart, MA, PhD, *Director of Studies in Archaeology and Reader in Prehistory (1986: Research Fellow)*
- 2000 T A Coombs, MA, PhD, *Joint Director of Studies and USL in Engineering*
- 2001 H Azérad, MA, PhD, *Joint Director of Studies in MML and University Senior Language Teaching Officer in French*
- 2003 A L Hadida, MA, PhD, *Director of Studies and USL in Management Studies*
- 2004 C S Watkins, MA, MPhil, PhD, *Tutor, College Lecturer and Reader in History (1998: Research Fellow)*
- 2004 A L Du Bois-Pedain, MJur (Oxford), Dr Jur (Humboldt, Berlin), *Dean, Director of Studies for the LLM & MCL and Reader in Law*
- 2005 S C Mentchen, MA, *Tutor, Joint Director of Studies in MML and University Senior Language Teaching Officer in German*
- 2007 S J Morris, BA (Newcastle), *Senior Bursar and Steward*
- 2007 R M Burnstein, MB, BS (Sydney), PhD, *Assistant Tutor for Postgraduate Students, Joint Director of Studies in Clinical Medicine and Head of School of Anathasia, Addenbrooke's Hospital*
- 2008 G P Pearce, BVSc (Bristol), MA, PhD (Leeds), *Director of Studies in Veterinary Medicine and USL in Farm Animal Health and Production*

- 2009 C Brassett, MA, MChir, *Deputy Senior Tutor, Joint Director of Studies in Pre-clinical Medicine and University Clinical Anatomist*
- 2010 M J Waithe, MA (Leeds), PhD (London), *College Librarian, College Lecturer and USL in English*
- 2010 C D Lloyd, MA (Kent), *Development Director*
- 2010 R L Roebuck, BA, MEng, PhD, *Joint Director of Studies in Engineering and University Senior Design Engineer (Teaching)*
- 2010 A K Bennison, BA, MA (Harvard) and PhD (London), *Director of Studies in Asian and Middle Eastern Studies and Professor in the History and Culture of the Maghrib*
- 2011 L C Skinner, BSc (Queen's, Canada), MPhil, PhD, *Tutorial Advisor (Postgraduates), Joint Director of Studies in Natural Sciences and Reader in Earth Sciences*
- 2012 E K M So, MA, PhD), *Director of Studies and Reader in Architectural Engineering*
- 2014 W Khaled, MSc (London), PhD, *Director of Studies in Natural Sciences (Biological) and UL in Pharmacology*
- 2014 A Ercole, MA, PhD, MB, BChir, *Joint Director of Studies in Pre-clinical Medicine*
- 2015 T Euser, MSc, PhD (Twente), *Joint Director of Studies in Natural Sciences (Physical) and UL in Applied Physics*
- 2015 J M Munns, MA, MPhil, PhD, FSA, *Tutor, Admissions Tutor (Undergraduates) and Director of Studies and University Affiliated Lecturer in History of Art*
- 2016 S A Bacallado, BSc (MIT), PhD (Stanford), *Admissions Tutor (Access), College Lecturer in Pure Mathematics and UL in the Department of Pure Mathematics and Mathematical Statistics*
- 2017 S Dubow, DPhil, *Smuts Professor of Commonwealth History*
- 2017 S J Eglon, BSc (Nottingham), DPhil (Sussex), *Joint Director of Studies in Applied Mathematics and Professor of Computational Neuroscience*
- 2017 N Carroll, MA, MB, BChir, *Joint Director of Studies in Clinical Medicine and Consultant Radiologist in the Department of Gastroenterology*
- 2018 J Orr, MEng, *College Lecturer in Engineering and UL in Concrete Structures*
- 2018 S Atkins, MA, *Chaplain*
- 2018 P Lane, MA, PhD, *Professor of African Archaeology*
- 2019 A Meghji, MA, MPhil, PhD, *Joint Director of Studies in Human, Social, and Political Sciences and UL in Social Inequalities*
- 2019 M C Skott, PhD, *Tutor and Director of Studies in History*
- 2021 S Ravenscroft, PhD, *Acting Admissions Tutor, Director of Studies and College Lecturer in Theology (2019: Fellow-Commoner)*
- 2021 A E J Mills, MA, BCL (Oxford), *College Lecturer in Law*

EMERITUS FELLOWS

- 1960 P J Grubb, ScD, *Emeritus Professor of Investigative Plant Ecology*
- 1962 R Hyam, LittD, *Emeritus Reader in British Imperial History; Archivist Emeritus*
- 1964 P E Reynolds, ScD
- 1968 His Honour C F Kolbert, MA, PhD

- 1968 N Boyle, LittD, FBA, *Emeritus Schröder Professor of German*
 1971 R J S Spence, MA, PhD, *Emeritus Professor of Architectural Engineering*
 1979 E Duffy, KSG, DD, FBA, FSA, *Emeritus Professor of the History of Christianity*
 1984 N Rushton, MD, *Emeritus Professor of Orthopaedics*
 1984 H A Chase, ScD, FREng, *Emeritus Professor of Biochemical Engineering*
 1981 M A Carpenter, ScD, *Emeritus Professor of Mineralogy and Mineral Physics*
 1992 K Patel, MA, MSc and PhD (Essex)

LIFE FELLOWS

- 1990 W R Cornish, CMG, QC, LLD, FBA, *Emeritus Herchel Smith Professor of Intellectual Property Law*
 1996 T H Clutton-Brock, ScD, FRS, *Emeritus Prince Philip Professor of Ecology and Evolutionary Biology*
 2001 A R Thompson, MBE, MA, MPhil
 2001 S Halper, BA (Stanford), PhD
 2004 E H Cooper, LittD, FBA, *Emeritus Professor of Medieval and Renaissance English*
 2008 T A J Cockerill, BA, MPhil (Leeds), PhD (Manchester)
 2014 E Rothschild, CMG, MA, *Honorary Professor of History*

RESEARCH FELLOWS

- 2010 P M Steele, BA, MPhil, PhD, *Lumley Senior Research Fellow in Classics*
 2011 C N Spottiswoode, BSc, PhD, *Senior Research Fellow in Biological Sciences*
 2012 J R Raven, LittD, FBA, FSA, FLS, *Senior Research Fellow in History (1990: Fellow) and University Affiliated Lecturer in History*
 2015 S Caddy, PhD, *Senior Research Fellow in Molecular Biology*
 2016 F C Exeler, PhD, *Mellon Research Fellow in History*
 2017 A Neumann, MA, PhD (London), *Senior Research Fellow in German*
 2017 A P Coutts, MSc, PhD, *Senior Research Fellow in Sociology, Social Policy, and Public Health*
 2020 A Baez-Ortega, MSc (La Laguna), PhD, *Nevile Research Fellow in Biological Science*
 2020 Y Glazer-Eytan, MA (Tel Aviv), PhD (Johns Hopkins), *Lumley Research Fellow in the Humanities*
 2020 F I Aigbirhio, MA, DPhil (Sussex), *Senior Research Fellow in Biomedical Imaging*
 2021 C Casey, PhD (Dublin), *Parnell Visiting Fellow in Irish Studies*
 2021 D L Dunkelman, MSc (Zurich), *Nevile Research Fellow in Biology*
 2021 P Asimov, AB (Brown), MSt (Oxford), *Lumley Research Fellow in Music (from February 2022)*

BYE-FELLOWS

- 2020 O F R Haardt, MPhil, PhD, *Teaching Bye-Fellow in History (2017: Research Fellow)*

- 2021 F England, MEng (London), MRes, *Bye-Fellow in Stem Cell Biology*
 2021 C Vassiliu, MPhil, *Bye-Fellow in Linguistics*
 2021 V Vitaliev, Diploma of Translator, Philologist, and Teacher of English (Kharkov), Diploma of Patentologist (Moscow), *Royal Literary Fund Teaching Bye-Fellow*

FELLOW-COMMONERS

- 1990 R L Skelton, MA
 1997 A I J Valluy-Fitzsimons, Diplômée de l'ISIT (Paris)
 2002 J J Hellyer Jones, MA, FRCO, *Honorary Assistant Organist*
 2010 B Fried, MBA (Pennsylvania)
 2011 N Raymont, BSc (Econ)
 2012 P J Marsh, MPhil
 2014 R V Chartener, AB (Princeton), MPhil, MBA (Harvard), *Chairman of the Magdalene Foundation*
 2014 C H Foord, *Assistant Bursar*
 2015 A Ritchie, QC, MA, *College Advocate*
 2015 C V S Brasted-Pike, MSc, PhD, *Joint Director of Studies in Natural Sciences*
 2016 G H Walker, MA, *Director of College Music & Precentor*
 2017 H Critchlow, PhD, *Outreach Fellow*
 2020 L Masuda-Nakagawa, PhD (Tokyo), *Teaching Fellow in Neurobiology (2018: Bye-Fellow)*
 2020 F Scheury, MA (Clermont-Ferrand), *Teaching Fellow in Portuguese (2018: Bye-Fellow)*
 2020 A J W Thom, MA, MSci, PhD, *Joint Director of Studies in Natural Sciences and UL in Chemistry (2011: Bye-Fellow; 2012: Fellow)*
 2020 M R W Rands, BSc, DPhil (Oxford), *Master of Darwin College (2011: Fellow-Commoner)*

HONORARY FELLOWS

- 1984 HRH the Duke of Gloucester, KG, GCVO, MA
 1984 Professor Sir John Boardman, MA, FBA, Hon RA
 1992 Professor Sir David Hopwood, MA, PhD, and DSc (Glasgow), FRS
 1996 A B Gascoigne, CBE, MA, FRSL
 1997 Professor H H Vandler, AB, PhD (Harvard), Hon LittD
 1999 J C F-Simpson, CBE, MA, FRGS
 2001 Sir Colin Corness, MA
 2001 Professor Sir Richard Jolly, KCMG, MA, and PhD (Yale)
 2002 Professor Sir John Gurdon, PhD, Hon ScD, Hon DSc (Oxford), FRS
 2005 D J H Murphy, MA, *Bursar Emeritus*
 2005 Professor Sir David C Clary, ScD, FRS
 2005 The Rt Hon Lord Malloch-Brown, KCMG, PC, MA
 2005 R W H Cripps

2008 The Rt Hon Lord (Igor) Judge, PC, MA, Hon LLD
 2009 The Rt Hon Sir Andrew Morritt, PC, CVO, MA
 2009 R H Vignoles, BA, BMus, ARCM
 2009 The Hon Wong Yan-lung, SC, MA, JP
 2012 Khoon Hong Kuok, BA (Singapore), *Pepys Benefactor Fellow*
 2012 D D Robinson, CBE, MA and MA (Yale), FSA
 2015 Professor S M Springman, CBE, PhD, FEng
 2015 C I von Christierson, B Com (Rhodes), MA
 2015 HRH, Sultan Nazrin Shah, BA (Oxford), PhD (Harvard)
 2015 L L Cardozo-Kindersley, MBE
 2015 Dame Carol A Duffy, DBE, BA (Liverpool)
 2018 A Tennent, BA, MIB
 2018 T Cripps, BA, MBA
 2020 The Rt Revd & Rt Hon the Lord Williams of Oystermouth, PC, DD,
 Hon DCL (Oxford), FBA
 2020 Professor the Lady Williams of Oystermouth, MA
 2020 The Rt Hon the Baroness Hale of Richmond, DBE, LLB, FBA
 2020 M C Newell, BA
 2020 The Very Revd Dr D M Hoyle, MBE, MA, PhD, FSA
 2020 C B M Derham, MA

HONORARY MEMBERS

1999	Anthony Bloom	2003	Jack Vettriano
1999	Dr Beverly Sackler	2007	Dato Isa Bin Ibrahim
1999	Sir Anthony O'Reilly	2009	Colin Day
1999	Lady O'Reilly	2010	Margaret Higgs
2000	Thomas Monaghan	2011	Lady Braybrooke
2000	Christopher Smart	2015	Allen Zimble
2003	Claire Tomalin, Hon LittD	2019	David Fyfe
2003	Dr Helen Lee		

This issue is edited by Professor Raven, assisted by Mrs Fitzsimons,
 Jo Hornsby, and Philippa Coe.



The New Library, ex supra

MAGDALENE COLLEGE MAGAZINE

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FROM THE MASTER

In his farewell message in last year's *College Magazine*, my predecessor said that he had not expected to be writing his last message as Master 'in such strange circumstances' and concluded by saying 'who can guess what the climate will be when my ... successor sits down to write next year's letter'. Sadly, as we are all too well aware, the COVID pandemic has overshadowed my first year as surely as it did Rowan's last.

Yet it is not with COVID that I wish to start my first letter as Master. Rather, I want to begin by saying how delighted Sue and I are to be back in Magdalene and how very much we appreciate the warm welcome which we have received. I first visited the College as a seventeen-year-old schoolboy to be interviewed by Mickey Dias – a half-hour interview which lasted nearly two hours and which I still recall as one of the most fascinating conversations of my life. That was the prelude to four very happy years as a student, then eighteen as a Fellow of Magdalene, during which Sue and I were married in the College Chapel and had our children baptised there. Pandemic or no pandemic, returning as Master after a gap of twenty-five years has been a homecoming.

I am often asked how much the College has changed during those twenty-five years. The answer is that there is so much of the College with which I fell in love that has not altered: the beauty of First Court, of Hall, the Pepys Building and the Chapel, the happy intimacy of the village, the warm and friendly community life. In other respects, it is a very different College: the dramatic improvement in Tripos results, a greater diversity of students and Fellows, the increase in the number of graduate students, and, of course, the magnificent New Library are only some of the changes. But these changes have built on, and enhanced, what was already the essential spirit of the College.

That spirit has been very much in evidence in the adverse circumstances of this year. Successive lockdowns have meant that most teaching has had to be provided online. Many of the events which characterise Magdalene life have had to be cancelled. There was no Matriculation Dinner or photograph, no Pepys Feast, no May Ball. Perhaps the saddest blow of all was that a sudden outbreak in College towards the end of June meant that we were unable to hold the McFarlane-Grieve Dinner for the graduands or to admit guests to the

reception after the graduation ceremony, although, unlike last year, the graduation ceremony did take place in person.

Amid all these disappointments, it was heartening to see how well our staff, students, and Fellows coped. Staff endured successive furloughs, working in difficult conditions in College or at home (often with small children underfoot). They delivered food parcels to students in isolation, improvised social facilities, and coped with the need to find accommodation for a first year intake far larger (after the Government's change of heart about A-level results) than anyone could have expected. Students displayed a resilience and patience which a Stoic might have envied. Fellows improvised with different methods of teaching, interviewing, and examining, undertook pastoral burdens far heavier than usual, and responded to constant changes in the regime under which we have had to operate. I am most grateful to them all.

What is remarkable is how much was achieved during this difficult year. As I write, results are still coming in from University examinations (the timetable for which had to be extended) but it is already clear that we have an impressive array of firsts and starred firsts, discussed in more detail below by the Senior Tutor. The University Challenge team won through to the finals with a series of superb performances. The Men's First Eight became the informal Head of the River in the regatta arranged as a substitute for the May Bumps. Although the formal opening of the New Library had to be postponed (we hope to hold it in 2022), we were able to open the building for student use in the Easter Term and it was featured among the top ten buildings of 2020 in an article in *The Times* in February.

It was also heartening to see how many alumni and Fellows made generous donations to help fund our bursaries and other financial support for students in hardship (in many cases a hardship which had fallen upon them suddenly and unexpectedly as a result of the pandemic). I am immensely grateful to them and to Corinne Lloyd and our Development Office team who, having already raised the funds for the New Library in record time, worked tirelessly to ensure that we could offer financial support to those students. It is an immense source of pride that Magdalene has one of the highest rates of support from alumni of any Oxbridge college.

My deepest thanks also go to the College Officers who have borne a tremendous burden during these difficult times, in particular to Jane

Hughes (whose very successful term as President comes to an end in September and who has steered me through my first year as Master), the Senior Tutor, Stuart Martin, and his tutorial team, and our Bursars, Steven Morris and Helen Foord.

It is too early to say what the next academic year will bring. I very much hope that we will be able to resume teaching in person, the hospitality for which Magdalene is justly famed, and the myriad of human contacts which are so important to the life of a college. But whatever lies ahead, the experience of this year suggests that Magdalene can and will cope with it.

Sir Christopher Greenwood



The Magdalene Fox in the Fellows' Garden in November 2020 (Photo: Mark Scott)

IN MEMORIAM

JOHN FIELD

Emeritus Fellow



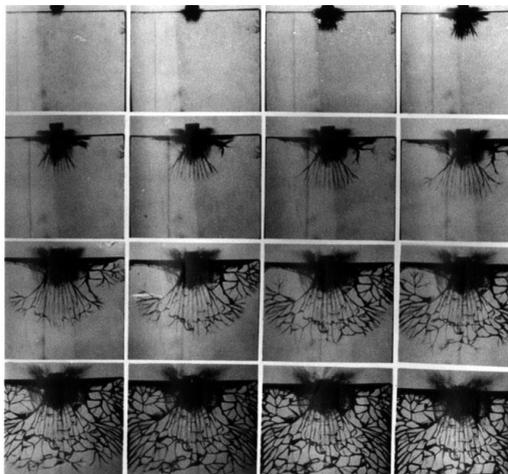
John Field (1964)

John Edwin Field OBE, MA, PhD, FRS, born 20 September 1936. Educated at King Edward VI Grammar School, Stourbridge, Worcestershire, University College London (Class I BSc in Physics 1958) and Downing College Cambridge (PhD 1962). Research Fellow funded by Owens-Illinois (an American manufacturer of glass) in the Cavendish Laboratory 1962–64. Research Fellow, Magdalene College 1964–66. University Demonstrator in Physics 1966–71, University Lecturer 1971–90, Reader in Applied Physics 1990–94, Professor of Applied Physics 1994–2003. Head of Physics and Chemistry of Solids Section Cavendish Laboratory 1987–2003. Fellow, Magdalene College 1966–2003, Emeritus Fellow 2003–20. Joint Director of Studies in Natural Sciences 1973–87, Tutor for Graduate Students 1974–87. OBE 1987. FRS 1994. Honorary Fellow of the Royal Society of South Africa 2002. Hon DSc Luleå 1989 and Cranfield 2002. Duddell Medal, Institute of Physics, 1990. John S Rinehart Award, European Association for Research in the Dynamics of Materials and their Application 2009. Married Ineke Tjan 1963, two sons, one daughter. Died 22 October 2020, aged 84.

John Field grew up in Worcestershire. His father, William Edwin Field, was a butcher. His mother's father, Thomas Henry Mandsell, was an engineer and inventor. However, it was two sons of one of the Fields' neighbours who went on to study physics at university, one at Cambridge and one at Birmingham, who inspired John to apply to do the same. After gaining a First at UCL, John moved to Cambridge to carry

out research under Dr (later Professor) Philip Bowden FRS who was the founder of the Physics and Chemistry of Solids Group at Cambridge. For his PhD, John worked on high speed liquid impact that results in the deformation and fracture of brittle solids, a topic in which he maintained a life-long research interest.

For the whole of his career, John was based in the Physics and Chemistry of Solids Group, and within that field he – with members of his group and visitors – made major contributions in several quite different areas. These included the strength of materials (especially the fracture strength of diamond, the effects of polishing and erosion, and response to shock), the initiation of explosives by the collapse of bubbles, the generation of shock waves, ‘shock physics’ more widely (wave propagation and material response), the erosion of metals by solids, and rock blasting.



Selected frames from a high-speed photographic sequence showing the propagation of fracture produced by the impact of a lead air gun pellet striking the edge of a plate of glass; inter-frame time 2.0 microseconds (Field & Heyes in G Helviich (ed), Proceedings of the Seventh Congress of High Speed Photography, Zürich, 1967)

John was skilled at getting undergraduates with potential for research to pursue PhDs under his direction on what one colleague has called ‘unglamorous but important topics’. After a short chat in the tea room with a student who was thinking of working for a PhD at Imperial

College on nuclear reactor physics, John persuaded him to study solid particle erosion instead.

Another of John's strengths was his ability to devise simple but highly instrumented experiments to explore the dynamic behaviour of materials. He expected his research students to design and build their own apparatus, with the help of the staff in the workshop. In the early days, money was short and little thought was given to what became known as 'health and safety'. Later, with John's powers of persuasion, money was obtained from governmental and industrial sources, one result being that his group was equipped with state-of-the-art high-speed cameras used in many projects including studies of explosive initiation. Most importantly, what impressed newcomers to John's research group was the lack of hierarchy and the willingness of all group members to collaborate. John also encouraged his students to make professional contacts in both this country and internationally.

In the 1960s, he began a long collaboration with De Beers on the mechanical properties of diamond. For many years he organised an annual diamond conference which was held at a major university, and was always timed around the annual tennis tournament at Wimbledon which executives of De Beers wished to attend. John also edited two books summarizing research in this area: *The Properties of Diamonds* (1979) and *The Properties of Natural and Synthetic Diamonds* (1982). John's interest in erosion by liquid and solid particles led to his organizing from 1979 until 1987 a series of International Conferences on Erosion and Solid Impact. Their success owed a lot to John's ability to find funding and to attract leading international researchers to speak.

In the early 1980s, the Ministry of Defence realised that there was a need to understand better the dynamic properties of both inert and 'energetic materials' (explosives). The ministry turned to John whose team developed a method to make accurate measurements of the 'high rate' mechanical properties of metals, polymers, granular materials, and energetic materials. These measurements were vital for the development of numerical simulations. The project went on to explore exactly what happens in an explosion, using a remarkable high-speed rotating mirror camera designed by the UK Atomic Energy Weapons Research Establishment. It could take 140 images with a 5 microsecond inter-frame time.

Later, John combined working for the MoD with his long standing interest in erosion by particles. The MoD was concerned about 'radomes', which protect sensors on missiles and aircraft, because they are damaged in flight by fine liquid and solid particles in the atmosphere. Apparatus was designed to run over long periods while subjecting candidate infrared-transparent materials to streams of particles. The experiments led to the increased understanding necessary to produce more damage-resistant radomes. John's expertise led to his being a member of various committees, including the Defence Scientific Advisory Council and the Nuclear Research Advisory Committee, which advised the MoD's Chief Scientific Adviser on the structure of its research programme in both conventional and nuclear arms weapons.

From early 1985, John started chairing what became the Terminal Effects and Energetic Materials Advisory Committee. Here, John combined his deep understanding of physics with his natural wit when questioning anyone proposing a new line of research. He had a natural flair for predicting whether or not a line of research would be successful and useful. He was also influential in persuading government ministers of the importance of maintaining top-class research on explosives. In recognition of his service, John was appointed OBE in 1987.

This work for the government meant that John had a very high level of security clearance, and he had to report any contacts he had with Russian scientists at international conferences. This did not stop him loving Russian literature; he read keenly works by Turgenev, Dostoevsky, Tolstoy, Chekov, Sholokhov, and Solzhenitsyn.

Meanwhile, a completely new line of research – bubble acoustics – was established in John's group in 1984, stimulated by Dr Alan Walton who joined the group from the Open University. In due course, other new research carried out in the Cavendish and other laboratories led to significant advances in medical diagnosis and treatment.

One of John's most rewarding collaborations was in the field of experimental mechanics. It involved two Swedish scientists, Bengt Lundberg and Martin Lesser, and began in the early 1970s when they were based in the Swiss Atlas Opco Research Lab in Lausanne. They became professors in the new University of Luleå in northern Sweden, and John made annual trips there in March or April to perform hands-on experiments himself. His impact in the university's Laboratory for Experimental Mechanics was such that it is now called in his honour *The*

John Field Laboratory. His trips were timed to coincide with ideal conditions for cross-country skiing.



John Field (right) cross-country skiing near Börjelslandet, near Luleå in Northern Sweden in 2011 (Photo: Dr Per Gren)

John had 84 research students, was co-author of 423 scientific papers and chapters, and sole author of 38. At his peak, between 1989 and 2004 he published an average of 17 papers a year. He was promoted to a Readership in 1990 and a Professorship in 1994, the year of his election as FRS. The Cambridge Philosophical Society (named more than 200 years ago when 'Philosophy' included Natural Sciences) benefitted greatly from John's dedicated services when he was the Physical Secretary from 1962 to 1991.

John entered Magdalene as a Research Fellow in 1964, and was an Official Fellow from 1966 to 1994, when he became a Professorial Fellow. John was elected a Fellow when the Governing Body was much smaller than it is now, and junior Fellows including Research Fellows were expected to play a substantial role in running the College. From 1973 John was Joint Director of Studies in Natural Sciences, and from 1974 Tutor for Graduate Students. He made a huge contribution, helping countless undergraduates and graduate students with their problems.

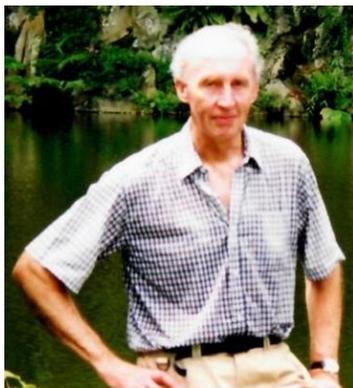
He was also Acting Librarian when Dr Hyam was on leave. He had to relinquish these commitments in 1987, when he took on the administrative burden of the Headship of the Physics and Chemistry of Solids Section at the Cavendish Laboratory, one of the largest units in the department.

John was a stickler for observance of the received formalities, but he also enjoyed practical jokes. A PhD student had recently visited a German art gallery and seen an oil painting that showed an extraordinary likeness to John; the background showed what looked like St Catharine's College. John acquired a copy of the painting and had it displayed in his office. He successfully persuaded visitors to his office that he was the subject, but he did have some difficulty in passing off St Catharine's as Magdalene! Jokes aside, John had a deep love and appreciation of paintings.

John was a keen cyclist, and rarely used his car. He loved the outdoors: mountain walking, running, and skiing. His strong competitive streak was seen clearly in his cross-country skiing and running; the latter included running for the College.

John offered wise counsel to his colleagues, and would articulate the humorous side of a situation with a gentle smile just when that was needed.

P J Grubb



The author is greatly indebted to Dr Stephen Walley for making available the account of John's life and work to be published as a *Biographical Memoir of the Royal Society*, and to Dr Alan Walton for his recollections and helpful suggestions on many issues.

IN MEMORIAM

RICHARD LUCKETT

Emeritus Fellow, formerly Pepys Librarian



Richard in the pet cemetery in the College Fellows' Garden (1978)

Richard Lockett, MA, PhD. Born 1 July 1945. Educated St John's School, Leatherhead and St Catharine's College Cambridge (Exhibitioner 1964). Lecturer, Dept of Modern Subjects, Royal Military Academy, Sandhurst, 1967–69. Fellow of St Catharine's (Research Fellow 1970, Official Fellow 1972), University Assistant Lecturer, 1972 and University Lecturer in English, 1978; Fellow of Magdalene College (Official Fellow 1978, Emeritus Fellow 2012); Pepys Librarian and Keeper of the Old Library, 1982–2012, Precentor 1982–94. Died 19 November 2020, aged 75.

Richard Lockett would have hated the terms which it is so easy to apply to him: polymath, Renaissance man, sui generis. A man who had wide ranging knowledge of the world through his travels as well as through his reading, he was nevertheless committed to caring about local places – a college chapel, a Sussex town, a library – and especially to caring about people. He saw history through human eyes.

Richard Lockett was the son of Canon Gerald Archer Lockett and Margaret (née Chittenden). His sister, Helen, remained a friend and support to him throughout his life. He adored his family, and his own

eclectic mix of interests must have been formed by the activity of the household, where passions included sundials, printing, and engineering. Until his retirement to smaller premises, Richard ate breakfast each day at a dining table made by his father, an amateur but accomplished carpenter. Early years saw him at a private prep school and then St John's School at Leatherhead. St John's had been founded to provide education freely to sons of the clergy, but by then was independent, with many of the characteristics of a boys' public school. Some thirty years later, Richard was genuinely mortified when a slightly younger guest at dinner in Hall at Magdalene, and a member of the same alma mater, reminded him that he (the guest) had been expected to turn up each day to make Richard's toast. Richard vigorously denied this. He had not enjoyed school, although some aspects of its ethos echoed themes in Richard's later life: there was music and a choir, outdoor activities, and a military aura (Montgomery of Alamein was Chair of the Governors). But Richard was comfortable in who he was and did not need to bully or be bullied.

After school, and a short but inspirational period teaching in Turin, there was Cambridge. The English course suited him and he developed a lifelong affection for the intimate, conversational, free-flowing, small group teaching arrangements or 'supervisions'. Richard graduated from St Catharine's in 1967. He became a tutor in twentieth-century European history for two years at the Royal Military Academy, Sandhurst; but he returned to take a PhD at Cambridge in 1969, receiving the degree in 1972 with a thesis on the topic of the Legend of St Cecilia in English Literature. While still a graduate student, he became a Research Fellow of St Catharine's in 1970 and then an Official Fellow in 1972, on his appointment as a University Assistant Lecturer in the Faculty of English. In 1978 he became a University Lecturer, and acted as Secretary and later Chairman of the Degree Committee; and he moved to Magdalene as a Fellow, the Keeper of the Old Library, and Director of Studies in English, also becoming Precentor in 1982.

Significantly, he became assistant to Robert Latham, the distinguished Pepys Librarian, who was just completing the monumental edition of the Diaries, co-edited with William Matthews. Richard contributed greatly to the work, most noticeably in the article on 'Music' in the Companion volume. He also helped Latham as the multi-volume Catalogue of the Library evolved. Later, as Pepys Librarian himself, he commissioned supplementary volumes, most importantly a Census

edited by Charles Knighton and published (as all the Catalogue volumes are) by Boydell and Brewer. Taking early retirement from his University appointment for health reasons, he maintained the various Magdalene library roles part-time. With Richard forming a powerful and learned alliance with Ronald Hyam, the Archivist, the College's cultural possessions were in good hands. His continuing work in the historic libraries was possible through the help and expertise of two remarkable deputies: Mary Coleman and Aude Fitzsimons, who oversaw visits by scholars and readers, public opening hours, the maintenance of the libraries (assisted by a number of expert conservators most notably Jill Flintham), and the administration of the paperwork.



Richard with Robert and Linnet Latham in 1987

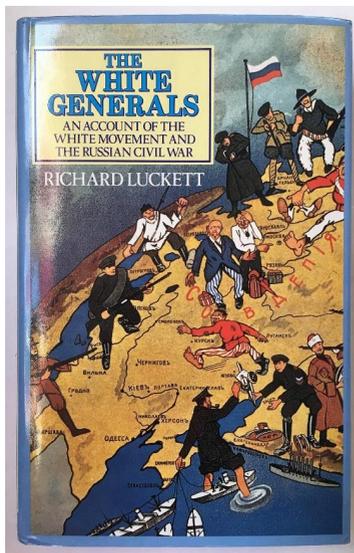
It is an understatement to say that paperwork was not Richard's forte. As a new Director of Studies in 1987, I telephoned Richard to ask him about a letter I had sent him concerning some minor aspect of administration. 'As it happens', he responded with genuine enthusiasm, 'I am dealing with it now – it is right here on my desk'; words accompanied by the unmistakable sound of rummaging in a bin and the rustling of paper being smoothed. Later on, when we knew each other better, I was confident and cheeky enough to suggest he checked for a missing document filed under WPB, at which he at least professed to be highly amused.

The flow of anecdotes about Richard seems unending, with the most famous concerning his St Catharine's days when a doorway was bricked up in a student prank. Unfazed, Richard called the Porters' Lodge and asked for two particular young men to be summoned. How could he possibly have known they were the culprits? Richard had recognised the unique brick-laying style as that taught at Sandhurst; and the two hapless students were the only former graduates from there. Stories of Richard often share this motif of erudition practically applied. He himself especially enjoyed recalling the occasion when he asked the BBC pronunciation service for advice on a Cyrillic word. They didn't know, they responded, but knew someone who undoubtedly would; and he found himself a few seconds later answering his telephone to be asked his own question. His reputation for learning was widely acknowledged among the student body, and could backfire on him – when confined to his rooms after one of his many accidents, he asked a student to buy him a copy of *Don Quixote* for relaxing reading: the student went to great trouble to acquire a copy in sixteenth-century Spanish, only to be asked sheepishly to return it for the English translation.

All who remember Richard recall his sense of humour. Even when suffering from acute pain and serious illness, he would be delighted to see visitors and would take responsibility for entertaining them. Almost the last time I saw him before he died, we ended up with tears of laughter reading bits of John Aubrey's hilarious *Private Lives* to each other (from Richard's seventeenth-century edition, of course). On another occasion, he was very tickled to hear some statistic that fifty percent of anglers sit on the riverbank with no bait on their lines – so that their tranquillity is not disturbed by a fish. And he memorably but unprintably told his students about a maker of erotic harpsichords...

It was (and still is) a particular sadness that he did not publish more. As his friend Jim McCue put it,

Luckett's erudition seemed to promise a flow of remarkable books, but the promise was never fulfilled because his researches never ended.



Indeed, Richard struggled with determining the moment at which he had finished; and his almost unerring tardiness in submitting writing by deadlines (which necessitated some imaginative excuses) was always because of care not carelessness. When I wrote a very short book on the Pepys Library, he was characteristically generous in his support; and in particular, he asserted forcefully that he could not have done it himself. It was, of course, an absurd idea. Yet there was an element of truth, in that he knew so much about the Library and the collections that the process of triage would have been impossibly painful.

Perhaps he had found that the negative and unjust scholarly responses to his first book, which was on the Russian Civil War (criticism which focused on the military emphasis of Richard's argument as against a more political reading of events) inhibited him in his further writing. The casually cruel comment in a review in 1971 that *The White Generals* 'should not have been published' would have knocked the confidence of any young scholar, and especially of one who was himself incapable of such routine viciousness (a second edition was issued as a paperback in 1987). He was 27 and it would be twenty-two years before his next academic book.

Oliver Goldsmith writes of a brilliant schoolmaster, 'The wonder grew/ That one small head could carry all he knew'. In Richard's case, it was the chapter, article, or book which failed to accommodate his learning; his head accommodated his learning rather well. Richard's friends and colleagues will recall the slight pause in his response when

asked about a topic, and then, as the cogs whirred into action, his monumental, erudite, and brilliantly articulated response. It is not much to our credit, but many of his friends confess that they shared a passing thought, just for a brief second, when one of us asked about some obscure Victorian or unremembered Elizabethan, – ‘Ah, I’ve have got him now’, we thought – before the Lockett fireworks began. And what a joy to hear and see them.

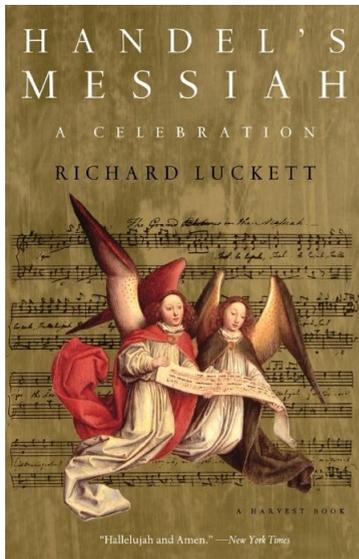
When Richard did write, it was lovely to read. Crisp and witty in places, and movingly described in others, as in his account of the White Army in desperation on the icy plains, with Markov suddenly proving himself a leader. The struggles of military leadership fascinated him as much as the strategies of warfare.

An accomplished writer of notes for musical programmes and CDs, Richard had a way of summarising the musical effects of the work being described and to locate the piece within its historical context, while also encouraging the listener to attend and to engage. Writing succinct prose of such quality is a rare skill. This example from his notes on *The Echoing Aire*, a recording of Purcell by Sylvia McNair with the Academy of Ancient Music, shows how much he could evoke of the musicality and the cultural environment of a composition in a pithy four sentences:

In 1679 Dryden and Nathaniel Lee collaborated in a wildly extravagant version of Sophocles’s *Oedipus*. Purcell’s music dates from the early 1690s. ‘Music for a While’ is used by the prophet Tiresias to summon the ghost of the murdered Laius and learn the origin of the curse which affects Thebes. The extraordinary tension, which must both ‘beguile’ and yet convey the unnaturalness of this conjuration, is inherent in the subtle irregular construction of the ground on which the song is built.

Richard was generous in his writing and without any malice; but never wrote sentimentalities: his obituary of his friend Philip Vellacott (written in 1997) is a fine example of how he could combine genuine affection and wry observation:

In person he was slim, erect, quizzical and tenacious. He was a resolute walker, and a pianist of professional competence who knew the entire Art of Fugue by heart, if at a rather steady pace. He had Shakespeare virtually word for word.



In 1992 came Richard's finest writing: an erudite, beautifully-illustrated, and affectionate volume on Handel's *Messiah*, with the subtitle 'A Celebration'. And celebration it is, exploring the creation of this much-loved work through the turbulent relationships between Handel and his librettist, Charles Jennens. Typically of Richard, the democratic nature of musical performance comes to the fore, with his tribute to the longevity of Handel's oratorio not only in the grand performances in public spaces such as Westminster Abbey, but also in local, small town productions by humble people.

Among Richard's greatest loves were boats and ships. He might have echoed the words of Peter Heaton in his Pelican book *Sailing* (a copy was given by Richard to the College Library):

There are few things in this world so fascinating, so rewarding, or so productive of the good in man than the art of sailing.

And the art of sailing sparks one of the synergies between Richard and Pepys: in the public display in the Library there would always be some one or more items of Pepys's nautical collection, from images of the mole at Tangier and the supply book of the Spanish Armada, to Matthew Baker's *Ancient Shipwrightery*, or Francis Drake's pocket almanac. An acknowledged expert in the field, Richard would advise scholars on the differences between a galley-foist and a barge, or the various style of rigging developed in the seventeenth century, or the daily routine of the royal shipyards. It was only ill-health which stopped Richard from taking to the sea to celebrate his fiftieth birthday with a trip round Cape Horn.

For a person of action, the propensity of Richard's bones to fracture must have been a real trial, though he rarely complained. An incident at

King's Cross station where he was knocked to the ground by hurrying commuters (or, in a different version, skateboarders) left him on crutches for months. His famous and elegant rooms, up a winding staircase in the Pepys Building, provided both a delight to him and also a painful test. He always recorded with genuine and justifiable gratitude the role of the College porters in providing support and help when he was 'confined to barracks' after one of his many accidents, and notably during a dark period in his life of depression and struggles with alcohol. And they in turn speak of him with affection and admiration: 'a true gentleman'.

Richard never failed to ask colleagues visiting him in Rye to convey his good wishes to the porters and they likewise never forgot him. There was a time when he relied heavily on the porters for assistance whether in answering physical requirements such as shopping and medical prescriptions, or in supporting him when under pressure from his role. Before his retirement from Magdalene, he resided not quite above the shop but next to it, with the Pepys Library adjacent. This proximity was a mixed blessing. He was deeply aware of the responsibility which came with looking after this iconic collection within this iconic building, and there were times when it was impossible for him to 'switch off'. Dangers to the Library seemed all around: the fire at Windsor Castle in 1992 didn't help; neither did reports of thefts such as archivist Greg Priore's decades-long campaign of larceny at Pittsburgh (starting the same year as the Windsor fire); and the need for preservation of the Pepys's oak and glass bookcases themselves from black mould, damage by the public, and all sorts of worms and bugs. It is a tribute to him that he left the Library in fine fettle. And indeed, Richard enhanced the Library Room, most notably by the acquisition of a portrait of 'a gentleman, possibly Mr Pepys', which only within the last twenty years has been securely identified as the diarist depicted in his parliamentary constituency; and is now known as the Harwich portrait of Pepys and hangs in the Library.

The Library will always be associated with Richard in the history of the College. But Richard was foremost a distinguished teacher. Magdalene English in the 1970 and 1980s was run by the Professor of Medieval and Renaissance Literature, John Stevens, by Richard Lockett and by Arthur Sale. Richard's book-lined rooms in the Pepys Building were the scene of many memorable supervisions, with Richard presenting a sort of archetype of the Cambridge don, or at least the best

elements: Nick Drake (1980) asks 'How could one man... cross his legs and yet still have both feet on the floor?' Rob Wyke (St Catharine's 1972) recalls arriving at his supervision to be asked in a kindly voice 'Well, what sort of regress have you made this week?'; Sarah Atkins remembers receiving a book after she graduated, sent by Richard to find her all the way in Ghana. Many was the student who discovered to their alarm that they had not prepared their French set text and went to Richard the night before an exam for reassurance, a glass of brandy, and a quick coaching session. And many a student was inspired to follow their private and personal interests in contemporary literature without attention to the canon, in the secure knowledge that Richard had himself undoubtedly read their favoured author, and had quite likely met them. Simon Coury (1978) remembers 'how little [Richard] slept and how much of his waking time he spent reading. From my room I could see his rooms, and whatever time I went to bed his light was always on and he was reading, and whatever time I got up he was reading still/again. He also told me once that he was temperamentally incapable of not finishing a book he had started'. Never getting to grips with a computer or a mobile phone (nor exhibiting the slightest desire to do so), Richard stayed in touch with many former students by letter and by landline, and was hugely proud of their achievements.

John Stevens and Richard Luckett were both distinguished experts on early music, and the College became a focus in Cambridge for the study and performance of pre-eighteenth-century music. Since his time as an undergraduate Richard had been active in the Cambridge performance scene: he produced Yvonne Minton in Gluck's *Orfeo et Euridice* and Alberto Renedios in Strauss's *Ariadne auf Naxos*. In the year he was elected as a Research Fellow at St Catharine's he was producing the 'notorious operetta' *The Pride of the Regiment* for the May Week concert. Once at Magdalene, concerts in Hall were constructed around the beautiful reading voice of Gillian Beer and madrigals sung by the great soprano Emma Kirkby. Throughout his life Richard was an ambitious producer and enabler of early musical performance: with (to give just two examples) a memorable and evocative version of Purcell's *Dido and Aeneas* in Longstowe Hall near Wimpole, just outside Cambridge; and *Inkle and Yarico*, the anti-slavery operetta by Samuel Arnold, performed by Opera East in the recently completed Sir Humphrey Cripps Theatre at Magdalene in 2006, conducted by Oliver

Gooch and directed by Alistair Boag. Richard himself edited the George Coleman libretto for this latter occasion, which commemorated the role played by Magdalene in the abolition of the transatlantic slave trade. The musical life of the College was hugely enhanced by Richard's engagement with the Chapel, as a member of the Choir, as Precentor and, along with Stephen Farmer, as the guiding hand behind the purchase of a new organ, made by Goetze & Gwynn in 2000.



*Former Precentor and new Precentor, Easter Term 1996.
From left to right, Daniel Webb (Senior Organ Scholar), Dr Luckett (formerly
Precentor), Hugh Morris (Junior Organ Scholar), Dr Farmer (Precentor),
and Richard Brasher (Senior Music Scholar)*

It is impossible to write about Richard's contribution to Magdalene without mentioning his long and fruitful friendship with Ivor and Dorothea Richards. It was a relationship which evolved from the 1970s when Richard became a personal, intellectual, and social support to the elderly couple (who resided in Wentworth House, at the end of the Fellows' Garden) to the period after their deaths in 1977 and 1986 respectively when Richard became the assiduous executor of their literary and physical estate. The Ivor and Dorothea Richards Collection now occupies a special room in the Old Library, developed by Richard

and Ronald Hyam, and is a resource which brings many scholars to the College. Two signs (out of many) of the care which Richard took over the presentation of the eclectic mix of items in the Collection is his commissioning of an elegant scrollarium to house the Chinese scrolls, and Richard's promotion and supervision of the cataloguing of the archive, undertaken superbly by John Constable around 1990.

In 2013, Richard retired to Rye, where he was close to boats, to military history (the nearby canal was a landmark he often pointed out to visitors), and to intriguing Magdalene connections. This last is no better illustrated than by his discovery in a Rye antique shop of a platter, marked (as was the Victorian custom) with the name of the Magdalene College butler Swannell and bearing the College crest. How did this find its way to Rye? Richard's hypothesis was that the platter had been in the possession of the local Rye literary celebrity E F Benson (author of the Mapp and Lucia books), acquired when he dealt with his brother's estate in 1928: his brother was the Master of Magdalene A C Benson. Given as a gift to the present writer for some very minor service, the platter is now back at College. Richard's first house in Rye was lovely but completely unsuitable: a tall townhouse of four floors, the top accessed by a spiral staircase which Richard invited his visitors to scramble up, but which was impossible for Richard himself; and there were treacherous, slippery steps down into a long garden. He moved eventually to a more compact house close to the centre of the town, elegantly decorated, and full to overflowing with books, prints, and ancient musical instruments. From here, he continued to correspond, sharing his knowledge and generously answering questions. His housekeeper was a regular visitor on his behalf to the local copy centre, xeroxing passages from rare sixteenth and seventeenth-century books to be posted out to friends and other scholars, accompanied by extensive notes and explanations in Richard's distinctive italic handwriting.

In later years he was confined to his house, but in the early years of his retirement Richard was a well-known figure in Rye, and took an interest in the town as well as the surrounding countryside. In a local obituary, the curator of the Rye Art Gallery, Julian Day recalled Richard's extensive knowledge of art, and how he always had an interest in people, both those with whom he was talking and sharing a glass of wine, and those about whom he spoke: the cultural figures of Kent and East Sussex such as Vita Sackville-West and Edward Burra. Even when very ill and

immobile, Richard was to be relied on for good conversation. This could be no better described than by a letter received by the College from one of the district nurses who had routinely visited Richard at his home in Eagle Road until his death, Janet Warren:

Typically, during a visit, once discussion around his personal health had been had, conversation would turn to a wide range of topics and we always had a really good 'chat'. Richard never overwhelmed with his exceptional intellectual ability, he was gentle, unassuming and modest – even encouraging me to give Pepys a try! Hence there is on my bookshelf a copy of *The Shorter Pepys* as tactfully suggested by him. One visit in particular comes to mind. I was accompanied by a young medical student who wasn't particularly interested in my work but was required to "gain an insight". On introduction to Richard, he noticed the harpsichords (so immensely important to Richard who was concerned that they should not become museum pieces but be found a home where they would be played and enjoyed) and began an animated conversation with him. This medical student was also a talented musician and able to fully appreciate the instruments. He didn't hesitate when Richard invited him to play and there followed the most unusual and delightful visit for all.

Richard was diagnosed with cancer over the Christmas of 2019. He decided against a very extensive programme of surgery proposed; and it was a tribute to him and the nursing care he received that he was able to remain at home until just hours before he died.

M E J Hughes

IN MEMORIAM

MARTIN HUGHES

Life Fellow



Martin Hughes, BSc, PhD, MB, BChir (Hons, Cantab). Born 18 May 1949. Educated Leeds Grammar School, London University (BSc in Chemistry), Clare College Cambridge (PhD in Chemistry 1975 followed by Medicine); Foulkes Fellow (Clare College) 1975. After his clinical studies at Addenbrooke's Hospital, Cambridge, he qualified with multiple distinctions in 1979. General Practitioner from 1982 becoming Senior Partner before he retired from medical practice. Official Fellow Magdalene College 2000, Director of Studies, Tutor, broadcaster, and writer. Survived by his wife Clare and their daughter Amelia. Died 10 August 2020, aged 71.

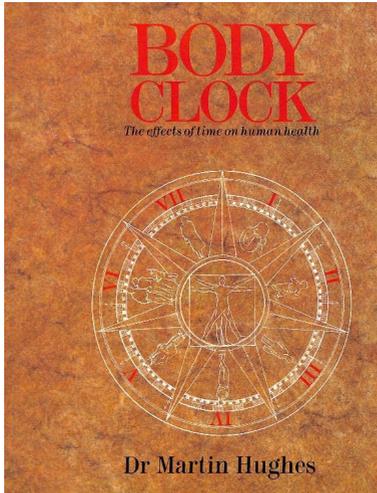
Martin Hughes was proud of being Grammar School educated and also a Yorkshireman ('God's own county'). He read chemistry at London University graduating with first class honours before moving to Clare College, Cambridge to undertake a PhD in 1972. His research topic was metal ion function in liver alcohol dehydrogenase; a subject that he insisted remained close to his heart for the rest of his life. He completed his PhD in 1975 and remained at Clare to read Medicine. He was awarded a Foulkes Fellowship in 1975 that helped him fund his medical

studies. His clinical experience was at Addenbrooke's Hospital, Cambridge graduating top of his year in 1979 with distinctions in Medicine, Surgery, Clinical Pharmacology, and Therapeutics.

He became a General Practitioner in Cambridge in 1982, becoming Senior Partner at The Red House Surgery, Chesterton Road. He was a clinical teacher in general practice. Under his leadership the practice looked after medical care at Brookfields Hospital, the Children's Hospital at Milton, and the Anglia Ruskin University Medical Centre. He also supervised in Chemistry and Pharmacology for Cambridge colleges, including Magdalene, and lectured at Addenbrooke's. He became a Fellow of Magdalene College in 2000, Director of Studies in Preclinical Medicine, Pharmacology supervisor, and, later, a Tutor to students reading a wide variety of subjects. His tutorial style matched his personality. He was larger-than-life with a robust vocabulary that the students — and Fellows — may not have been familiar with in everyday college life. He had no sympathy for those who were idle and would make his feelings clear. However, he dispensed good advice and would support and defend his students against all-comers.



Martin was a medical correspondent for BBC Radio Cambridge, with a regular weekly slot, and also hosted BBC1's *Doc Martin's Casebook*. He enjoyed the more popular side of medical writing, producing *Bodyclock* in 1990 in which he related time with medical functions. He wrote GCSE resource books for schools including *Finding Out About Medical Research* and, lastly, a novel, *Mediblack*, that was published in 2017.



He enjoyed real tennis, squash, skiing, sailing, walking, food, drink, and discussion. He liked a good party. Few who heard them will forget his speeches after the Medical Society dinners.

In his last years he was painfully disabled by the increasing complications of undiagnosed hemochromatosis.

N Rushton

THE COLLEGE RECORD

I FELLOWSHIP ELECTIONS

The President: PROFESSOR BRENDAN BURCHELL



I first came to Cambridge in 1985 as a researcher, then temporary lecturer, and spent my time split between the Department of Applied Economics and Social and Political Sciences (SPS). I assumed that I'd be made redundant from Cambridge when my short-term contracts came to an end, but was absolutely delighted in 1990 when I was offered a permanent job at the University of Cambridge.

Along with that offer of a lectureship in SPS came some interest from colleges. Magdalene seemed very keen to recruit me. Previously, I would have had no interest in an all-male working environment but by 1990 Magdalene had been accepting women as undergraduates for three years, and I was reassured by friends in my department not to believe all of the stories about Magdalene; it had its redeeming features, and it was a college about to go through significant changes.

Nothing up to that point in my life prepared me for the shocks I encountered in my first term at Magdalene. There were all sorts of unfamiliar and downright weird stuff like the gowns, the Latin grace, the parades on and off High Table, the College silver, rice pudding, and a

chapel with stalls instead of pews, but the strongest early memory was my first meeting with the College Marshal. He responded to my 'Please, call me Brendan' by making it absolutely clear that, while he would call me what he liked behind my back, for him and the College Staff there were only two options for addressing me in College: *Dr Burchell* or *Sir*.

But within this new environment I also discovered a new community that would become important to my life in so many ways. I had no idea, in those early days, how much I was to enjoy the friendship and conversation of the Fellowship, and just how privileged I was to be able to dine with and get to know the other Fellows, and the wider community of the undergraduates, postgraduates, 'Non Resident Members,' and visitors to College over the decades. Not only have they made my life richer and more interesting, but they have helped me through difficult times too. I even ended up living in College for a very enjoyable two years of my life. It was in the difficult times that really brought home to me how very fortunate I was to be in an environment where I was so supported by friendly and familiar faces in the buttery, the kitchens, the gardens, the porter's lodge, housekeeping, and all of the administrators that I've worked with over the years.

Magdalene has, of course, changed a lot over my time here, and in most ways for the better. I have been fortunate to experience a great community among the Fellowship (not always the case in Oxbridge colleges). I still haven't fully worked out why the Magdalene Senior Combination Room has been blessed in this way, but it has, undoubtedly, had much to do with the good character and skills of those in key positions in the Magdalene Fellowship, in particular the Presidents, Chaplains, and Masters we have had over the years. There was never any risk of me becoming Chaplain or Master, but I could not have felt more honoured to be selected by the Governing Body to be our next President. It is a daunting role, but I feel reassured by the fact that the past seven Presidents are all still actively involved in College. I shall not be short of good counsel when I need it. I did think long and hard about taking on the role when I was making a determined effort to cut back on work, but my wife's enthusiasm for Magdalene was a key factor in deciding to take it on. Gill has been made to feel welcome in College since we first met, and indeed we were married in the Chapel, as was my stepson.

The early period of my Presidency will be dominated by attempts to return to some sort of normality after the devastation of the pandemic. I doubt things will fully return to the *old normal* in the coming year, but there is also the opportunity to ‘build back better’ as we reflect on how our shared values relate to our habits and rituals. My research interests make me acutely aware of the stresses that the working Fellows face in trying to combine University and College commitments with the rest of their lives and with their own wellbeing. I see an important part of the President’s role as facilitating the College as a good place to work, the satisfaction we all get from good teaching, mentoring and research, and our spiritual health however that is defined in our diverse community.

B J Burchell

Official Fellow



ALISTAIR MILLS has been elected to an Official Fellowship from September 2021. He was an undergraduate at Magdalene, studying law, from 2006–09. He took a postgraduate course at Oxford in 2009–10, before returning to Magdalene to supervise administrative law in October 2010. At the time, he was living in his home town of Newcastle, studying for the Bar. He does not have fond memories of the commute! He has supervised for various colleges since 2010, and was honoured to be made an External College Lecturer in Law at Magdalene in 2012. He practised as a barrister at Landmark Chambers, specialising in public law, and planning and environmental law, but has always kept an interest in teaching and writing about the law. He is married to Josephine, and they have a house rabbit. He plays the viola and piano, nowadays mainly in church.

Parnell Fellow



CHRISTINE CASEY is an architectural historian at Trinity College Dublin where she is Professor of Architectural History. She is researching Anglo-Irish building culture of the eighteenth century. Her career began as a student foot soldier in the Pevsner *Buildings of Ireland* series to which she has contributed two volumes, including the volume for Dublin city where she lives with her husband, Michael, and children, Michael and

Catherine. She is particularly interested in craftsmanship in architecture and in the unsung masons, carvers, joiners, and plasterers responsible for a great deal of the quality of eighteenth-century buildings. A dogged attachment to archives is alleviated by equal enthusiasm for close observation of buildings as seen here on the scaffolding of the Dublin Custom House recently conserved for the centenary of Irish independence.



Professor Casey with figures of Britannia and Hibernia, pediment of Dublin Custom House

Research Fellows



DANIEL DUNKELMANN has been elected to a Junior Research Fellowship in Biology from 1 October 2021. Daniel distinctly remembers his first contact with Magdalene College (M1) when they crashed into his stern in record time in Lent Bumps 2019. He grew up in a picturesque town at Lake Thun in the Swiss mountains. He initially remained in close proximity to lakes and mountains when he ventured to Zurich to study Interdisciplinary Sciences at ETH. Being biology and loving the fact that it straddles the borders, he conducted research in laboratories in Switzerland, England, and the US as well as Japan. He then joined the MRC Laboratory of Molecular Biology to pursue a PhD in synthetic biology with Prof Jason Chin. When not in the laboratory or on the water, Daniel enjoys long walks with his Swiss mountain dog, Mutzli. Having spent his career in sciences at predominantly scientific colleges, Daniel can't wait to learn more about arts, music, history, and philosophy from fellow Magdalene College members.



PETER ASIMOV has been elected to a Lumley Research Fellowship in Music from February 2022. Born and raised in New York City, Peter received a richly musical upbringing as a pianist and chamber musician. Instead of pursuing a career in performance, he opted to study comparative literature (French and Sanskrit) at Brown University, before teaching English for a year in Marseille, France. These detours allowed him to return to music as a postgraduate and researcher with new eyes (and ears)—first at Oxford, and then as a Gates Scholar at Clare College, Cambridge, where he completed a thesis on French musical modernism with a particular focus on the music of

Olivier Messiaen. He is spending 2021 as a postdoctoral fellow at the Université Libre de Bruxelles, Belgium, and although he'll miss the waffles, he looks forward to returning to Cambridge and joining the Magdalene community next year.

Bye-Fellows



LINA VASSILIU has been elected to a Bye-Fellowship in Linguistics. She holds a BA (2017) in Philosophy, Pedagogy & Psychology from the University of Athens (Greece), where she graduated 1st of 350 students. Linguistics was the ideal field for her, as it combined her love of language with the scientific method. She continued her studies in Cambridge, completing an MPhil in Theoretical and Applied Linguistics in 2018. Her thesis focused on the structural and pragmatic language of children with ADHD. She graduated with a Distinction and received the Kate Bertram Prize. She started her PhD in 2019 and is researching the relation of language learning and statistical learning, as well as the effects of multilingualism on cognitive skills. Since she matriculated in Magdalene, it became her home away from home. She has held various positions in the MCR (including President). She enjoys running and has a deep love for theatre and acting.



FRANCES ENGLAND has been elected to a Bye-Fellowship in Stem Cell Biology. She holds an MRes (2019) in the same topic from Magdalene and an MEng (2018) in Bioengineering from Imperial College London. Growing up in Zimbabwe, Frances became passionate about developing medical technologies that can improve quality of life worldwide. During her undergraduate studies, she conducted research as a Wellcome Biomedical Vacation Scholar and an Amgen Scholar, which sparked her fascination in the therapeutic potential of stem cells.

Now as a PhD student, Frances seeks to resolve alveolar stem cell dynamics in lung cancer development. Since trading in the Zimbabwean sunshine for a few too many rainy days in Cambridge, she spends her free time dreaming of sunsets spent on the banks of the Zambezi River with a G&T in one hand and a good book in the other, whilst juggling the full-time job of (sometimes unsuccessfully) keeping two very mischievous cats from interrupting her Zoom meetings.



VITALI VITALIEV has been appointed as Royal Literary Fund Writing Fellow. He is a multi-award-winning and bilingual English-Russian author, columnist, editor, and broadcaster based in this country. His scientist parents coerced him into studying English and by the age of 12 was all but fluent – a highly unusual scenario for the Soviet Ukraine where he grew up until his move to Moscow in 1978. In the USSR of the 1980s, Vitali became known as the country's first investigative journalist. Little wonder he was forced to defect in January 1990. Since then, Vitali has worked in Australia, England, Scotland, and Ireland. He is the author of 14 books, all widely translated, and has been a columnist, editor, and features writer for the *Guardian*, the *European*, the *Daily Telegraph*, the *Herald*, and many more (including time as an 'elf' – or researcher – for the popular *QI* TV show). Shortlisted eight times for the UK Columnist of the Year Award, he is a Fellow of the Royal Geographical Society, and a popular public speaker and media commentator, with regular appearances on TV and radio. His recent BBC Radio 4 show, with the self-explanatory title *The Life of Dental Losses*, was first broadcast in 2017. His teaching record includes numerous lectures and seminars in creative writing, journalism, and linguistics at universities in Britain, Europe, and Australia. Vitali lives with his partner Christine, and Tashi, a furry Tibetan Terrier, in a small English town not far from London.

II THE MASTER AND FELLOWS

Professor Duffy has published *A People's Tragedy; Studies in Reformation* (Bloomsbury Continuum, 2020).

Dr Stoddart has published *Power and Place in Etruria* (CUP, 2020) reviewed below (pp 122-4); he co-edited *Temple Landscapes: Fragility, Change and Resilience of Holocene Environments in the Maltese Islands* and *Temple Places: Excavating Cultural Sustainability in Prehistoric Malta* (vols 1 & 2 of *Fragility and Sustainability: Studies in Early Malta* (McDonald Institute Monographs, Cambridge, 2020)), vol 1 with C French, C O Hunt, R Grima, R McLaughlin, and C Malone; vol 2 with C Malone, R Grima, R McLaughlin, E Parkinson, and N Vella.

Dr Azérad, as a member of the Glissant Studies Institute, the Library of Glissant Studies, and the Glissant Translation Project, has contributed to Dominique Aurélie *et al* (eds), *Edouard Glissant, l'éclat et l'obscur* (Pointe-à-Pitre: PUA, 2020) and L Carvigan-Cassin, *Édouard Glissant et Le Discours antillais: La source et le delta* (Éditions de l'Institut du Tout-Monde, 2020), deriving from the study-day he organised on Glissant in June 2019 in the Cripps Auditorium, with a plenary talk by Jacques Coursil, and building on the 2009 Magdalene symposium on Caribbean landscapes with Michael Dash and Jean Khalifa.

Professor Cooper gave this year's King's Gollancz Lecture for King's College London, on 'Five Strokes of the Axe: Patronage and the Gawain-Poet'. This is one of two Gollancz Lecture series.

Ms Mentchen has contributed a case study for Cambridge University to *The World Universities' Response to COVID-19: Remote online language teaching* (Research-publishing.net, 2021).

Dr Waithe has published *The Ins and Outs of Public Lettering: Kindersley Inscriptions in the Open* (Cambridge: Cardozo Kindersley, 2020) with Lida Lopes Cardozo Kindersley (Honorary Fellow) and Tom Sherwood.

Dr Brassett was awarded the Symington Memorial Prize in January 2020. This prize was originally established in 1920 by Queen's University Belfast in commemoration of Professor Johnson Symington. The Prize is awarded biennially by the Academic Council of Queen's University on the recommendation of the Council of the Anatomical Society for contributions to the advancement of anatomy.

Dr Khaled was awarded a £1,6m Programme Foundation Award from CRUK in January 2021 to fund research in his lab from 2021 to 2027.

Dr Munns has been awarded a Mid-Career Fellowship by the Paul Mellon Centre for Studies in British Art, which he will hold during the 2021–22 academic year. He has also been elected to the Slater Fellowship at the Institute of Medieval and Early Modern Studies and University College, Durham University, for the Lent Term 2022. He has co-edited a volume of essays, *Henry of Blois: New Interpretations* with W Kynan-Wilson (Boydell & Brewer, 2021).

Dr Meghji has published *Decolonizing Sociology* (Polity Press, 2020).

Professor Rothschild has published *An Infinite History: The Story of a Family in France* (Princeton University Press, 2021), reviewed below (pp 126-8)

Dr Steele has edited *The Social and Cultural Contexts of Historic Writing Practices* (Oxbow Books, 2021) with P J Boyes and N E Astoreca. In April 2021, she gave online the keynote lecture at the conference ‘Contacts linguistiques en Grèce antique (CoLiGA): diachronie and synchronie.’

Professor Raven has published *The Oxford Illustrated History of the Book* (OUP, 2020), reviewed below (pp 124-6), and has begun his two-year term as President of the Bibliographical Society, the world’s oldest such society. In early 2021, he jointly 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 PhD award, a postdoctoral award, and funding for extensive archival work. He gave a number of online lectures to mark the translation of his *What is the History of Book?*, the most recent in Vietnamese.

Dr Neumann chaired the annual Schroder Event entitled *From the Classics to Covid: Theatre Practice Today* in November 2020.

Dr Critchlow’s *The Science of Fate* (Hodder & Stoughton, 2019), reviewed in the College Magazine, 2019–20, has been issued in a Hodder Paperback (2021).

Dr Caputo is the joint winner of this year’s Prince Consort & Thirlwall Prize and Seeley Medal for a historical PhD thesis completed at Cambridge in 2019-20. She has been awarded the British Commission for Maritime History/Boydell & Brewer Prize for the best doctoral thesis in maritime history completed in the UK in the academic year 2019–20. She

received the Ideas Prize, awarded by Aitken Alexander and Profile Books for a non-fiction book proposal by an academic for the entry *Tracks on the Ocean*; the Scottish History Society Earl of Rosebery Prize for best transcription of historical manuscripts with scholarly apparatus; and was the joint winner of the Institute of Historical Research 2020 Sir Julian Corbett Prize in Modern Naval History. She won Third Place in the International Committee for the History of Technology Maurice Dumas Prize, for an article on the history of technology.

Dr Kreusser has been appointed Lecturer in Applied Mathematics at the University of Bath from August 2021.

Dr Aigbirhio has been elected a Fellow of the Academy of Medical Sciences.

Dr Brasted-Pike was made a Principal Fellow of the Higher Education Academy (Advance HE) in May 2021.

Honorary Fellows

Mr Robinson has published a review of the new British Galleries at the Metropolitan Museum of Art, New York, in the *Burlington Magazine* (July 2020).

Professor Springman has been appointed Principal of St Hilda's College, Oxford, from February 2022.

The Very Revd Dr Hoyle has been elected a Fellow of the Society of Antiquaries.



Cherry Blossom and the Lutyens Building in April 2021 (Photo: Matt Moon)

III ACADEMIC REPORTS

1 UNIVERSITY EXAMINATIONS RESULTS, 2021.

365 students took Tripos examinations. The numbers in each class were as follows: Class 1: 97; Class 2.1: 146; Class 2: 2; Class 2.2: 30; Class 3: 4; Pass: 81. The number of Firsts awarded by subject were: Archaeology: 1; Asian & Middle Eastern Studies: 3; Architecture: 1; Classics: 2; Computer Science: 2; Education: 1; Engineering: 6; English: 6; Geography: 2; History: 8; History of Art: 1; Human, Social, & Political Sciences: 9; Land Economy: 2; Law: 9; Linguistics: 2; Mathematics: 7; Medical Sciences: 4; Manufacturing Engineering: 1; Modern & Medieval Languages: 8; Music: 2; Natural Sciences: 14; Psychological & Behavioural Sciences: 2; Philosophy: 1; Theology, Religion, & Philosophy of Religion: 1.

University Prizes were awarded as follows:

A Froud (Theology, Religion, and Philosophy of Religion Tripos, Part IIA): *Teape Prize*; W Gelly (Law Tripos, Part IB): *Clifford Chance C.J. Hamson Prize for the Law of Contract & John Hall Prize for Family Law*; A Hamerton (English Tripos, Part I): *T.R. Henn Prize*; O Shelton (Archaeology Tripos, Part IIA): *Mark Gregson Prize*; T Joashi (Modern & Medieval Languages Tripos, Part II): *Kurt Hahn Prize & D. H. Green Prize*; V Molloy (Asian & Middle Eastern Studies Tripos, Part II): *Bhaonagar Medal*.

Senior Tutor's Report

In normal circumstances, carrying out the business of teaching our more than 500 undergraduates and postgraduates, supporting over 150 teaching and research staff, and looking after our many dedicated administrative staff is a challenge to the Senior Tutor. Doing so in a pandemic...well, that was uncharted territory. Ever since the first lockdown began at the end of the Lent Term 2020, the Tutors have been finding ways to do what needs to be done, despite the pandemic. Never in my long tenure as Senior Tutor would I have guessed that we'd all become experts in lateral flow tests, socially distanced and virtual learning, the etiquette of 'legacy hands' on Zoom, or knowing just how long virus particles can survive on a copy of G H Hardy's A

Mathematician's Apology in the College's New Library. Luckily, the Tutors and Directors of Studies are fast learners, whether taking care to avoid coming into too close contact with a student or colleague during a stroll around the Fellows' Garden, worrying about how lockdown is affecting our most vulnerable students and staff with caring responsibilities, or trying to hack through the impenetrable thicket of guidance emerging from yet another COVID-19 update from the University, the city Council, or the Government. The pandemic may not yet have come to an end, but the Tutors, students and support staff deserve huge congratulations for getting through the year with their sanity and good humour largely intact, and ready to face whatever further challenges may come our way.

Pandemics come and go, as do the annual Tripos examinations, and it is particularly pleasing to report that despite all the tumult of the academic year with its numerous frustrations, Magdalene's students still performed extremely well. The format of the summer exams was a mixture of in-person and virtual, to take account of the fact that a sizeable minority of students were studying at home, often thousands of miles away in a GMT-unfriendly time zone.

We had a record-breaking 365 students taking Tripos this year. The raw number of Firsts across all years rose to 97 or 26.5% (compared to 84 or 24% in 2019, the most recent year when the format of the exams is broadly comparable). This represents the third highest total in the last ten years (and the fourth highest percentage in that period). By year, the percentage of Firsts was: Freshers 19%, second year 29%, third/fourth year combined 32%. Overall there were 140 2.1s (which represents 40%). Combining the third and fourth years, 75% attained a First or a 2.1, a singular measure of success. It's worth noting that this year some subjects did not class, owing to the various disruptions, and we saw 22% being placed in a new 'Pass' category. Many of these results would have been Firsts or 2.1s in a normal year. There were eight University prizes reported in six subjects.

S Martin

The following elections were made by the Governing Body:

Bundy Scholarships: W J Adamczyk, O Bardsley*, A G Barker*, A Baxter*, E K Bhangu, L Butterworth, F B Cazalet, J S Chapman, Y M D Cheah, S

Cobb, C E Flesher, E Guild*, E F W Harratt, L W Hunt*, T F Joashi, J N Keisner*, N Leach, I A Macdonald, R A McHale, O F McLuskie, J Mo*, V P Y Molloy, J W Onions, J A G Petter, L Qi, R Reiff-Musgrove, J L Smith, J Soni*, M Takahashi, K Thompson, L E C Van Steene*, Y Wang, F R Willcocks, C C X Yeo.

* *in residence*

Scholarships: A O F Alsawaf, H L Betts, S Biyani, M Brooks, J M Byrne, T H J Carlton, K H T Cheung, O A Christopher, X W Chua, F X Coumbe, A D Cox, E V Ekon, A Fang, H L Fong, T L Fong, A Froud, P Gamble, W Gelley, I M Gianfrancesco, C Gommichon, J L Graham, T M Gray, A Hamerton, C Hart, T Hemley, R J Highnam, S Hill, A Hirata, C Hocking, S Ihenacho, C V S Johal, M I M L Khoo, A E Knight, A Konshin, J B C Lamb, A J Loy, S A Maclean, C M McCarron, G Miller, L Molnar, J A H Nicholls, B Niranjani, R-E Pfeifer, L Pike, F M Rubuano, O Shelton, A Sizer, F A Southwood, Y Sun, Y W J Tang, M Tapia Costa, Y X Teoh, B J Thompson, N Thornton, O J Tych, C Ujah, E L Wallis, X Wang, W Wattanawanitchakorn, M B Weisz, H R White, A Williams, D J Yates.

College Graduate Scholarships: M-E Dimitriou, M L Wendt.

Exhibition: E Antoniou.

College Prizes for excellence in University Examinations were awarded as follows:

Archaeology: O Shelton (*James Torre Prize*)

Architecture: R E Pfeifer (*Lutyens Prize*)

Asian and Middle Eastern Studies: T M Gray, F X Coumbe, V P Y Molloy

Classics: D J Yates (*Davison Prize*), E Guild (*Davison Prize*)

Computer Science: Y Sun (*Andrew Clarke Memorial Prize*), M Takahashi (*Andrew Clarke Memorial Prize*)

Economics: S Biyani (*Schoschana Wrobel Prize*), W Wattanawanitchakorn (*Brian Deakin Prize*)

Education: O A Christopher

Engineering: R J Highnam (*Lewins Prize*), C Hocking (*Lewins Prize*), M Tapia Costa (*Lewins Prize*), X Wang (*Lewins Prize*), L Qi (*Christopherson Prize*), F R Willcocks (*Christopherson Prize*)

English: L Pike, F A Southwood, A Williams, A Hamerton (*I A Richards Prize*), G Miller (*Stucley Prize*), J W Onions (*C S Lewis Prize*)

Geography: S Cobb (*Clarabut Prize*), J A G Petter (*Clarabut Prize*)

History: T H J Carlton (*Adeane Prize*), E V Ekon (*Adeane Prize*), C Hart (*Adeane Prize*), J A H Nicholls (*Adeane Prize*), L Butterworth (*Richard Carne Prize*), C E Flesher (*Dunster Prize*), J N Keisner (*Dunster Prize*), I A Macdonald (*Richard Carne Prize*)

History of Art: S Ihenacho (*Duncan Robinson Prize*)

HSPS: A D Cox, C Gommichon, F M Rubuano, N Thornton, O J Tych, T Hemley, S A Maclean, H R White, A Baxter

Land Economy: B Niranjana, A Konshin

Law: M I M L Khoo, C M McCarron, Y X Teoh, W Gelley, E K Bhangu (*Orlando Bridgman Prize*), J Mo (*Orlando Bridgman Prize*), C C X Yeo (*Orlando Bridgman Prize*), M E Dimitriou (*Norah Dias Prize*), M L Wendt (*Norah Dias Prize*)

Linguistics: L Molner, L E C Van Steene (*Peskett Prize*)

Manufacturing Engineering: A Hirata (*Lewins Prize*)

Mathematics: M B Weisz (*Dennis Babbage Prize*), K H T Cheung (*Walton Prize*), P Gamble (*Davison Prize*), Y W J Tang (*Davison Prize*), J M Byrne (*Edward Waring*), H L Fong (*Edward Waring*), T L Fong (*Edward Waring*)

Medicine: H L Betts (*Iris Rushton Prize*), I M Gianfrancesco (*Iris Rushton Prize*), J B C Lamb (*Iris Rushton Prize*), A O F Alsawaf (*Iris Rushton Prize*)

Modern and Medieval Languages: M Brooks, J L Graham (*Peskett Prize*), A E Knight (*Peskett Prize*), A Sizer (*Peskett Prize*), E L Wallis (*Peskett Prize*), F B Cazalet (*Peskett Prize*), T F Joashi (*Lincoln Prize*), N Leach (*Peskett Prize*), R A McHale (*Peskett Prize*)

Music: C V S Johal (*Lincoln Prize*), A Fang (*Lincoln Prize & Benjamin Britten Prize*)

Natural Sciences (Biological): B J Thompson, L W Hunt (*B C Saunders Prize*), E F W Harratt (*Keilin Prize*), O Bardsley, J Soni (*B C Saunders Prize*), A G Barker, Y M D Cheah (*Newton Prize*)

Natural Sciences (Physical): X W Chua, A J Loy, W J Adamczyk (*Maurice Goldhaber Prize*), J S Chapman (*Maurice Goldhaber Prize*), R Reiff-Musgrove (*Christie Prize*), J L Smith (*Christie Prize*), Y Wang (*Maurice Goldhaber Prize*)

Philosophy: S Hill

Psychological and Behavioural Studies: O F McLuskie, K Thompson
Theology, Religion, and Philosophy of Religion: A Froud (*Michael
Ramsey Prize*), Chinasa Ujah

Other Prizes were awarded as follows:

Bamber Gascoigne Prize: E Balani, A Davies, J M Byrne, D J Lawson,
A Tsovma, C J Payne

Davison Essay Prize: M I Seymour

Dorothy Kolbert Prize: I Kruger

Foo-Sun Lau Prize (jointly awarded): J D Adlam-Cook, M J Bryan,
J D Hardwick, J Swerdlow

Garrett Prize: A Fang

Gill Prize: F B Cazalet, A D Cox, T F Joashi, J A G Petter, N Thornton,
O J Tych

Hart Prize: T F Joashi

Jim Ede Prize: C Yazdanpanah

Macfarlane-Grieve Prize: D G Quigley

Mallory Prize: J Hughes, C E Flesher, A Sanchez Ricol

Master's Reading Prize: E Kwan

Mynors Bright Prize: F R Willcocks

Nicholas St John Whitworth Prize: E J Murray

Newton Essay Prize: J W Onions

Rae Mitchell Mathematics Prize (jointly awarded): J M Byrne, P Moulik

Winter-Warmington Prize: F A Southwood

2 GRADUATES

The following elections were made by the Governing Body:

Mandela Magdalene Awards: Hannah Clayton, Christopher Myburgh,
Shane Weisz; *Marshall Foundation Award*: Katherine Collins; *Roosevelt
Scholarship*: James Carey; *Donner Scholarship*: David Lawless

The following research degrees (PhD) were conferred in 2020–21:

B Beriham (Materials Science); A Binder (Politics & International
Studies); A Ceccarelli (Archaeology); T Cochrane (Social Anthropology); J
Giorgio (Psychology); K W E Li (Education); S Liu (Engineering); J
Mackay (Radiology); J Mehrer (Medical Science); N Mhlanga (Plant
Science); W Ryle-Hodges (Asian & Middle Eastern Studies); D Salihovic
(History); V Stancheva (Biological Science); X Zhuocong (Engineering).

V STUDENT ACTIVITIES

Junior Common Room.

JCR Committee 2021: M Holland: President; R Goswami: Vice-President; A Canning: Treasurer; R Jones: Secretary; C ap Tomos: Access and Academic; I Krüger and O Tych: Welfare; F Matheson and F Southwood: Freshers' Representative; K Pruden: Green and Charities; L Uddin: Catering and Accommodation; A Haigh: Ents; C Costea: Liberation, Access and Equalities; J Tang: International; E Connell: Women's; A Roberts: Disabled Students'; B Thompson: LGBT; J Virk: BME; A Zardasht: Class Act.

Magdalene JCR had its largest matriculating cohort this year, with 130 new students. Our Freshers' events were very different from usual in order to stay COVID-safe, with most events happening online instead of in person. We did host some socially distanced in-person events, including a film screening in the Cripps Auditorium. The JCR Committee has focused its efforts on student welfare over the past year, and during Michaelmas we used our welfare survey to determine how we could best help students, especially those who were in COVID-related isolation.

During the Lent Term, our welfare officers distributed 'Week Five Packs' of various treats to students who requested them, which proved a much more significant task than usual because of the logistics of posting the packs across the country. The welfare team has also significantly increased its menstrual product provision compared to previous years and our committee passed a motion in parallel with the MCR's to support the campaign for a period product scheme in College.

The trend of events being almost entirely online has continued throughout the year. In Lent especially, we worked to foster a sense of community when most of the JCR was living out of College. To this end, we held virtual quiz nights, made welfare calls, and we invited students to use the JCR Zoom account as a virtual Combination Room.

With most students now back in College, the Easter Term has still been particularly strange this year, with the combined stresses of a summative exam term and the risk of COVID. We hope that when we return in Michaelmas, College life will be back to normal as far as possible.

Middle Combination Room.

MCR Committee (Michaelmas Term 2020 – Lent Term 2021): J Ball: President; A Kefala-Stavridi: Vice-President; L Vassiliu: Secretary; J Deasy: Treasurer; F England: Welfare Officer; R Runge: Women & Non-Binary Officer; H Barbosa-Triana: LGBTQ+ Officer; C Osuafor: BAME Officer; I Sandak-Lewin: International Officer; J Sangen, D Xu: Social Officers; T Tunley: Administrative Officer; S Chen: Academic Officer.

MCR Committee (2021–22, elected Easter Term 2021): L Vassiliu: President; J Ball: Vice-President; A Kefala-Stavridi, D Xu: Secretaries; H Barbosa-Triana: Treasurer; M Chalakatevaki, M Newis: Welfare Officers; D Burgess: Women & Non-Binary Officer; C Osuafor: BAME Officer; I Sandak-Lewin: International Officer; N Egan: Green Officer; J Sangen: Social Officer; T Tunley: Administrative Officer.

The Magdalene MCR welcomed about 90 new students this year and we were one of the few colleges to host both virtual and face-to-face events during Freshers' fortnight, trying to maintain our sense of community while also following safety restrictions. A Grantchester walk, punt tour, cocktail reception, and an online pub-quiz were only a few of the featured events. We organised a Halloween pumpkin carving event and a socially-distanced movie night in the Auditorium. When lockdown was imposed, we had to find creative ways to remain connected. We held a 'virtual' running competition and a photograph competition. Diarmid Xu won the latter with a beautiful picture of some friends on top of Castle Hill.



Friends atop a hill (Photo: Diarmid Xu)

Unfortunately, we were unable to host banquets in Hall this year, so we assembled Christmas and Easter hampers for our members to enjoy at home. Our Social Officers also initiated a ‘fun fund’ which gave students the opportunity to order games or other items for their households.

During this admittedly very different and difficult period, welfare was one of our main concerns. All Committee members remained constantly available for the students and our Welfare Officer made sure to share relevant resources and contact points. Our Welfare Officer also distributed packages with treats and games and organised online yoga sessions throughout term-time.

Our BAME Officer organised an anti-racism workshop in collaboration with the JCR. Our Women and Non-Binary Officer (Roan Runge) hosted regular feminist reading groups, co-organised the Magdalene LGBT+ History Month Talk, and was our team leader in Cambridge’s Virtual Half Marathon. This initiative was an outstanding success. We ran in support of the Cambridge Rape Crisis Centre (CRCC) and managed to raise £3,507, coming second in the Highest Fundraising Team leaderboard. Finally, Roan in collaboration with our Welfare Officer (Frances England) proposed a motion for a Period Product Scheme which was accepted by our MCR and has now been officially launched.



Natalie Egan, Roan Runge, and Lina Vassiliu in their CRCC shirts

In the Easter Term, with the slight relaxation of COVID-19 measures, our members have been able to enjoy Formal Hall and access the MCR (some of them for the first time!).

Lina Vassiliu

The following obtained Full Blues (*) or Half-Blues during 2020/21:

J Elms	*Rugby, 2021
R Scowen	*Rugby, 2020 Australian Rules Football, 2021
T Tunley	Rugby League, 2021 Australian Rules Football, 2021
P Gehlert	*Lawn Tennis, 2020 & 2021
M Magee	*Basketball, 2021

The Editor is grateful to Mrs Marsh and Matt Moon for verifying the above.



The New Library (Photo: Matt Moon)

V LIBRARIES

Personnel

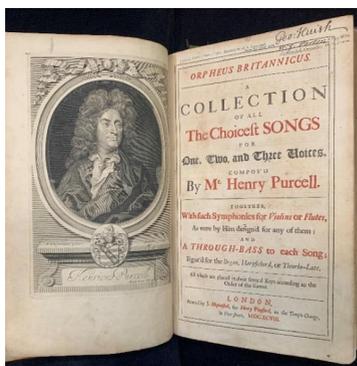
We were sorry to say goodbye to the Archivist, Dr Matilda Watson, who has been with us since 2018. Particular thanks are owed to Catherine Sutherland, the Deputy Librarian (Pepys and Special Collections), who stepped in to answer queries and to assist readers.

Tom Sykes, the Deputy Librarian (College Library) has managed the move of the library collections from the Pepys Building to the new building under very difficult circumstances: he is owed special thanks for maintaining the service to students through the move as well as managing the safe operation of the working library in the depths of the COVID crisis.

The residential Summer Intern Programme in the Old Library was cancelled for the second year running. It is hoped to have a non-residential intern in October or November.

A scheme of graduate supervisors has operated in the College Library, as outlined below.

The Historic Libraries



Title-page of Purcell's Orpheus Britannicus
(Photo: Catherine Sutherland)

The College has taken receipt of a very generous bequest of seventeenth-century books and manuscripts from the personal library of Dr Luckett, who died in 2020 (see Obituary pp 17-28 above). The items had been carefully selected by Dr Luckett to enhance the Historic Libraries' collections, and to reflect his interest in Pepys and in English music and theatre of the seventeenth and early eighteenth centuries.

Among the treasures in the bequest is a very large collection of music by Henry Purcell in the earliest printed editions. Library staff have begun cataloguing the books and manuscripts in order that they can be made available to researchers.

On International Women’s Day, new research on the identification of Mary Astell’s personal book collection within the Old Library was announced. The University Communication Office and Magdalene’s Alumni and Development Team helped to publicise the announcement, which reached the pages of the *Times* and the *Daily Telegraph*. Mary Astell (1666–1731) was an author in her own right, a rarity for a woman in the early eighteenth century, and the Old Library has received several enquiries from researchers worldwide about the collection.



Catherine Sutherland and the Mary Astell books

(Photo: University of Cambridge’s Office of External Affairs and Communications)

The Pepys Library has welcomed visiting researchers in a limited capacity, and has provided an enhanced enquiry service for those who have not been able to visit in person during the lockdown periods. The image ordering service has proceeded as normal and photographs of items from the Pepys Library and the Old Library have been reproduced in a variety of books and journal articles. Good progress has also been made in cataloguing the ‘Pepys Scholars’ Library’, the reference collection of books in the Pepys Library office, to enhance the discoverability of this collection for researchers.

Owing to the public closure, the Pepys Library’s quinquennial inspection of books was completed in record time by library staff. Some book repair and conservation work was carried out by the Cambridge Colleges’ Conservation Consortium which Magdalene joined in 2017. We

were also substantially assisted by the generosity of our 'Back a Book' supporters. Books which were repaired included items as varied as one of the Buttery Books, an edition of Erasmus, and a family Bible donated to the College by Dr Hyam. Thanks to a generous private donation, the pair of Senex globes in the Old Library have been sent for restoration. Among the books donated to the Old Library, a large three-volume set of 'life size' images of the Sistine Chapel ceiling will be an exciting resource for those studying History of Art.



Buttery Book before and after repair
(Photos: Cambridge Colleges' Conservation Consortium)

The Archive received a number of donations relating to the history of the College and its members, including items on the Magdalene Boat Club, correspondence of Lt Col Michael Cobb (author of the monumental *The Railways of Great Britain: A Historical Atlas*) and a letter from Henry Jowett (1756–1830), Fellow and abolitionist. Jowett describes to his sister the pressure of work that Fellows of the College are under – *plus ça change*.

This year an emphasis was placed on the online promotion of the historic libraries, including blog posts on topics such as Thomas Beckett, Magdalene archaeologists, and Welsh items in the Pepys Library. During lockdown periods, library staff made considerable headway in gathering book provenance information for the benefit of researchers. A number of projects were completed, including a digital reconstruction of Peter Peckard's library at Fletton, the contributing of information to the Bibliographical Society's Book Owners Online database, and the matching of books listed in the seventeenth-century donations register to their location in the Old Library today.

The Friends of the Pepys Library scheme has been very quiet, and subscription charges were waived for the year; but a full, hybrid programme is proposed starting in the autumn.

The College Library

This academic year began with the challenge of moving from lockdown to preparing for Michaelmas Term. This involved setting up a hybrid service of online support, zero contact services, and physical in person access to library resources and study space. As with all departments, we faced the challenge of working against a backdrop of uncertain and constantly shifting rules. In order for those still resident in College to access books, we set up the new online 'Request and Collect' service, with Library staff collecting, preparing, and delivering books for students to collect in a safe environment. This service has been well-used and has continued to run throughout the year. The (former) College Library presented many challenges to open in a COVID-19 safe way. With careful planning we were able to use the College booking system to provide our students with study spaces and access to browse and borrow books, with staff cleaning desks between study sessions and monitoring the booking system.

In the New Year and through the Lent Term, the final stages of delivering the New Library building were delayed several times owing

to the pandemic and the second national lockdown. The Library team organised the transfer of library stock from the Pepys Building to the New Library and worked closely with the contractors on the final works. In an undeniably hectic and testing time, it was a great privilege to be involved in the final stages of this build and to be on hand to guide finishing touches, not least with our excellent new signage scheme, designed by Nick Hawksworth.



New Library signage (Photo: Matt Moon)

In March 2021, the New Library was completed after a huge effort from all involved, and we were able to open the doors to students for the first time on 8 March. As in the Michaelmas Term, a great deal of planning went into opening in a managed and safe way. Additional COVID-19 specific signage was commissioned, and seating, booking, and ventilation were carefully planned. The response from our library users has been heartening, with a general sense of awe being the overwhelming response to the new space. We were able to extend our opening hours to evening and weekends with the recruitment of five of our graduate students as temporary Library Assistants. Compliance with COVID-19 rules was excellent and the New Library has proved a popular study space even with many restrictions in place.



Study desks in the New Library (Photo: Matt Moon)

Alongside the extraordinary challenges of this year, we have continued to enhance the library stock and have been grateful for several large donations from Fellows and former members. To mention acquisitions in just one subject, Mr Robinson and Professor Duffy have each given remarkable collections of History of Art volumes. A project to catalogue these volumes by a specialist cataloguer is in place for the summer and the Michaelmas Term.

In order to help stay in touch with students working remotely and to promote new services, we set up a College Libraries Instagram account which has proved popular, gaining 328 followers.

M E J Hughes,
Catherine Sutherland, Deputy Librarian (Pepys & Special Collections),
and Tom Sykes, Deputy Librarian (College Library)

VI CHAPEL AND CHOIR

Sacristan: B Davidson; *Ordinand*: M Brown (Ridley Hall).

The doors of our Chapel, now in its 55th decade, have remained open through this unsettling year. But while we have held them open online, many members have missed actually crossing the threshold. Nevertheless, whether by sitting in its physical sanctuary or marking the rhythms of worship from afar, Chapel has still given us something of the stability that our Benedictine heritage inspires in these faltering times.

Many students (including Freshers), Fellows, and staff, of all denominations and of none, connected with the worshipping life of the College, as did wider friends and alumni. Waves of COVID-19 and public health restrictions meant that at times Evensong, Sunday morning, and Wednesday Compline took place entirely online. Through the year there were short rations of in-person and social elements. The Chapel itself has been well-used for private prayer and music practice, but social distancing meant that only 20 could attend services. No Choral services took place in the Chapel for the entire Academic Year.

When, in the nineteenth century, our parish church of St Giles' had a Magdalene member as vicar (the chemist William Farish) parishioners endured a drastic reordering of the church. Undaunted, they have let us in again, and the College is very grateful indeed for their hospitality and for a spacious building for choral services and rehearsals. The generous acoustic made for a happy home in exile. During the year there were eight in-person Choral Evensongs in St Giles' and five candlelit Complines.

Various areas of College have been enlisted for worship: the Hall for the Freshers' service and Cripps Auditorium for Sunday morning Communion in Michaelmas Term; First Court was a memorable setting for an Act of Remembrance with the Last Post sounded on trombone and a wreath laid in Chapel by the OTC executive officer, a postgraduate student; First Court also hosted part of the Christmas Eve Midnight service (provided for the many students unable to travel home) and we were in the Fellows' Garden again for the Easter Dawn service. Ascension Day Choral Matins was held in the Master's Garden, as was Trinity Sunday Choral Evensong, the first in-person Choral Evensong for seven months. The year had begun with a quiet ceremony of the Installation of the Master in Chapel directly after his Admission in the

Parlour. At the First Choral Evensong of the year, he and Lady Greenwood were welcomed. The Chaplain presented him with the Master's Stall Bible – an earnest of the Sundays when he will eventually take his stall and gather with a full congregation to raise the newly repaired Chapel roof.

Notable online services (which remain available on the Chapel YouTube channel) included the Advent, Christmas, Candlemas, and Passiontide services of music and readings, prayers said from the Chapel on the death of HRH The Prince Philip Duke of Edinburgh, and the annual Commemoration of Benefactors. Unfortunately, however, the Choir Leavers' and Graduands' services were cancelled outright at very short notice because of an outbreak of COVID-19 cases in College – a cause of sorrow to many looking to mark the end of a stunted year.

Evensong preachers in Michaelmas took inspiration from the stones of College. Taking in turn the inscriptions above the gateways around Second Court, Professors Duffy and Boyle considered UNUM SUFFICIT and IN SAPIENTIA AMBULATE; the Bishop of Ely, VIDI DOMINUM on All Saints' Day; Fr Luigi Gioia, former visiting scholar and writer on prayer and St Benedict, OMNES HONORATE FRATERNITATEM DILIGITE; and the Reverend Dr Robert MacSwain, delayed Yip Fellow and scholar of C S Lewis, IN DIES AD DIEM, on the anniversary of Lewis's death. In the Lent Term, when most students were away from College and services moved back online, the Chaplain held the fort and Professor Duffy gave a moving reflection on the Chapel icon of the Mother of God of the Passion. In the Easter Term, guests included Fr Dragos Herescu, Principal of the Institute for Orthodox Christian Studies, Cambridge, and, on Trinity Sunday, Dr Pui Him Ip.

No baptisms, confirmations, funerals, or memorial services took place in the academic year. Several weddings, postponed from 2020, are planned for the summer. The Chaplain wishes to record her thanks to the Precentor whose care and guidance were invaluable as he conjured tenacity and beauty from our Choir during a very disrupted year; to the College staff who maintained the Chapel, oversaw and enabled our COVID response, and provided the wherewithal for the Chaplain's communal events (revision break strawberries in Second Court especially); to the Wardens and Sacristan; and particularly, to the Master for his ready support.

S Atkins

CHOIR REPORT.

Organ Scholars: I MacDonald and C Johal.

The pandemic has brought three not unrelated facts into stark relief: first, how much group singing contributes to a sense of community cohesion as well as to a positive mental and physical state for individuals; second, how much our students value the opportunity to be part of the College Choir and to take part regularly in rehearsals and performance as part of the ritual of Evensong; and third, the extent to which the members of our wider College community rely on that same Choral Evensong as a moment of catharsis and release, but also as a transient glimpse of the sublime.

The Choir began the Michaelmas Term in good spirits, singing with a full choir at St Giles', recording and broadcasting both full services and excerpts from Evensong. For various services we had a congregation, which of course transforms the lived experience for the Choir as well as for those in attendance. The various carol services were not possible as COVID cases were rising rapidly at that time, so we were obliged to pre-record and broadcast those; we were delighted to be able to work with the Development Team on the Alumni carol performance, which was the first time most of our singers had sung for a professional camera crew.

Inevitably, the Lent Term went by without any singing, but with the return of students in the Easter Term we were able, as we thought, to plan a term's music making and to get the Choir in full voice again. Little did we know that a combination of over-caution and confusion at the heart of government would lead to increased restrictions being imposed on singers in the middle of May, so that we were obliged to reduce to six singers at St Giles', after a delightful but abortive attempt at singing in the Master's Garden caused too much disturbance to students sitting exams.

So determined were our graduating students not to let the end of the year go by without marking it in some choral way that we managed to rehearse Harris's glorious eight-part anthem 'Bring us O Lord' on the slipway of the College Boathouse, to the delight and bemusement of passing cyclists and ducks. Unfortunately, the much-heralded third wave struck the College just before the service was due to take place, so we were, in the end, unable to sing the Choir Leaver's Service and the

Graduation service, both highlights of the end of normal pattern of activities at the end of the year.

I am always most grateful to the various people who, by their diligence, kindness and patience, make it possible for the Choir to be active. This year I am especially keen to express my gratitude in particular to the Chaplain, without whose wise and kind words and actions over the course of the year so much would have been impossible (including my passable impression of sanity). I also extend thanks to Helen Foord and others in the College Office for their help in negotiating the reams of guidance and legislation, the COVID Gold Team for their wisdom and support, the Master for his visible belief in the importance of what we're doing, and of course the members of the Choir, especially the Organ Scholars Ivo and Cameran, for their general cheerfulness and willingness to get stuck in and make the best of things. It hasn't been a glamorous year, musically speaking, but simply to reach the end of it with our Choir intact and in good spirits is an achievement of which we can be very proud.

G H Walker



The Choir rehearsing on the Boat Club slipway (Photo: Cameran Johal)

VII GARDENS

I bring fresh showers for the thirsting flowers,
From the seas and the streams;
I bear light shade for the leaves when laid
In their noonday dreams.
From my wings are shaken the dews that waken
The sweet buds every one,
When rocked to rest on their mother's breast,
As she dances about the sun.
I wield the flail of the lashing hail,
And whiten the green plains under,
And then again I dissolve it in rain,
And laugh as I pass in thunder.

The Cloud, Percy Bysshe Shelley

Another eventful year in the College gardens witnessed the wettest winter I have known in my fourteen years in Cambridge. The extremely dry spring of 2020 was followed by the extremely wet autumn and winter of 2020. The last five months of the year saw 367mm of rain fall – rather high given that 560mm is the average annual total. The River Walk through the Fellows' Garden flooded on no fewer than four separate occasions for the first time since 2012, with the most severe flooding on Christmas Eve. The rain carried on into January and February before we hit a major cold snap in the second week of February when the mercury dipped as low as -9.3°C and did not rise above freezing for several days.

The saturated ground gave the bulbs in College a great start compared to last year and there were terrific displays in both the Fellows' Garden and First Court. The wisteria on River Court was the most disappointing I have seen in my time at Magdalene, but this was more than compensated by the most wonderful floral displays on nearly everything else. The roses, and in particular the Albertine on the wall of Benson G, have put on a sterling display with masses of flowers, wonderful scent, and great longevity.



The River Walk on 24 December 2020 (Photo: Mark Scott)

Following the completion of the New Library, a great deal of landscaping was required to harmonize the new building with its surroundings.¹ The area under the veteran *Taxus baccata*, outside the front entrance of the new building, has been planted with specimens tolerant of dry shady conditions. Evergreen structure is provided by *Sarcococca ruscifolia* and the botanically interesting *Ruscus aculeatus*. Technically shrub-like rather than a shrub (which has woody stems), *Ruscus* was placed in the asparagus group of the lily family until it was moved in 1934 to its own family of *Ruscaceae*. More recently, it has been

¹ This area was of particular interest to Mr Jonathan Shanklin in his survey of College flora; see below pp 118-21.

reclassified again by the Angiosperm Phylogeny Group as belonging to the *Asparagaceae* family proper. The apparent spiked leaves are truly cladodes or modified stems, flattened and resembling leaves, and performing the same functions. The true leaves are scale-like, each bearing a cladode in its axil. The species is a native of Europe, North Africa, and the Near East, and commonly known as butcher's broom. It is remarkable in being the only shrubby plant of the monocotyledonous type native to the British Isles. Complementing the *Ruscus* are white *Helleborus orientalis* and the variegated *Brunnera macrophylla* 'Jack Frost' with its dainty powder blue flowers born in late spring. In the corner adjacent to the wall of the Master's Garden is a specimen of winter sweet (*Chimonanthus praecox*) and a smoke bush (*Cotinus coggygia*) to give winter scent and foliage colour. Both of these new plantings should develop into fine specimens over the coming years. Under-planting is provided by several thousand snowdrops.



Benson Court in March 2021 (Photo: Mark Scott)

At the north-western end of the Library, next to the pet cemetery, is another large bed. The main structure of this is provided by a specimen of *Prunus sargentii*, a native of northern Japan and Sakhalin in cultivation

in the West since 1890. According to W J Bean, this splendid cherry is probably the finest of the true cherries as a timber tree and is also one of the most beautiful in its autumnal colour and blossom. It flowers in April and the leaves turn orange and scarlet in late September and October. In thirty years, this large cherry should reach twelve metres in height and spread, and the under-planting of shade tolerant genera reflects this with ferns, hostas, and *Epimedium* interspersed with *Houttunyyia cordata*, *Tricyrtis hirta*, and *Asarum europaeum* among others. Also in this bed are several Japanese maples with the aim of increasing the collection already begun in the Master's Garden. These include the fabulous *Acer japonicum* 'Aconitifolium', a fine tree for a small garden with stunning autumn colour, as well as *A. palmatum* 'Bloodgood', and the wonderfully dainty *A. palmatum* 'Shaina'.



Fritillaries in the Fellows' Garden in April 2021 (Photo: Mark Scott)

On the other side of the wall, in the Master's Garden and adjacent to the New Library, we have continued our oriental theme of planting. The Japanese border planted two years ago, behind Second Court, changes country at the gate where we have specimens of Chinese origin. The border on both sides of the path is largely herbaceous with species such as *Dicentra*, *Astrantia major*, and *Bergenia*. The border down to the lawn has been divided up and now features three stunning *Prunus* 'Beni Yutaka' and the particularly ornate red fountain bamboo. *Fargesia* sp. 'Jiuzhaigou' was first discovered and collected by the German pharmacist Stephan Wagner in Jiuzhaigou Park in northern Sichuan in the late 1980s. It is a pachymorphic (clump forming) bamboo flourishing in semi-shade to full sun with canes growing to a height of three metres and displaying various shades of green, red, and purple. The narrow green foliage is small and dainty, allowing the colour of the canes to shine.

Further tree planting has taken place in the Fellows' Garden with specimens of rowan (*Sorbus aucuparia*) planted alongside the path up to the belvedere. I particularly love the mountain ash trees as they never fail to flower profusely. They berry heavily, have fantastic autumn colour, and make a sensational tree not only for the support of wildlife but for enjoyment. In the smaller garden. The four specimens planted are *S. aucuparia* 'Asplenifolia', *S. Joseph Rock*', *S. vilmorinii*, and *S. cashmiriana*. On the opposite side of the path are planted two evergreens; we are trying to increase the number of evergreens in College. Lower down the bank is the Caucasian Fir *Abies nordmanniana* otherwise known as a no-drop Christmas tree. Native of the Causasus and Asia Minor, it was discovered in 1836 and distributed by Mr Lawson of Edinburgh soon after. It is undoubtedly the most handsome and best growing of the firs and we hope that it will become a spot for the choir to sing carols in the coming years. Higher up the bank is an elegant specimen of Serbian spruce. *Picea omorika* was widely distributed across Europe before the last Ice Age but is now confined to a few stands in the limestone mountains of the upper Drina in south-east Bosnia and Herzegovina. It is of scientific interest as the only flat-needed spruce in Europe.

The spring bedding in First Court benefitted from the high rainfall and boasted a display of pink *Tulipa* 'Lady van Eyck'. This is a tulip we have not grown before, and brought positive comments from many students and staff. The wallflowers this year were the traditional mix

Persian Carpet, but I was reminded that I ought to have mixed in a little extra pink wallflower seed to set off the tulips. Dr Hyam can be reassured that the mistake will not be repeated. The summer bedding this year is themed around pink, mauve, and white. The edging is provided by the pretty rock isotome 'Pink Star' in-filled with petunias and cosmos and secondary accents of *Ricinus communis* 'Pink Carmencita' and one of our favourite herbaceous salvias, 'Amistad'. We hope that by the start of the new term we will also have completed the planting of the border adjacent to Hall with specimens of South African origin – watch this space.

Mark Scott (Head Gardener)

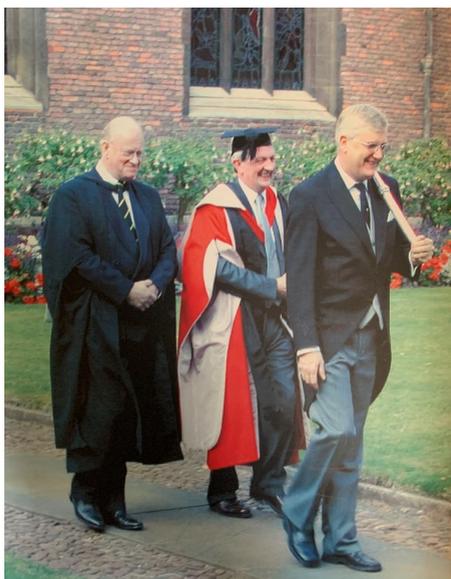


Tulipa 'Lady van Eyck' in April 2021

VIII COLLEGE STAFF

It is impossible not to mention the pandemic and the myriad effects it has had on all members of staff and the way in which they work. Despite all the difficulties, the College staff have managed to provide a great service to one another, students, and Fellows.

2021 marked a milestone for the College as Gary Love, College Butler, retired after 43 years' service. He joined the Buttery in 1978, was appointed Assistant Butler in 1980, rose to become Fellows' Butler in 1984, and College Butler in 1987. He was meticulously precise in laying a table in traditional pattern, and he relished inheriting the College's most senior staff post (as confirmed by the original Statutes of 1555). He enjoyed observing the foibles of colleagues and Fellows, has a large stock of amusing reminiscences, and is an unrivalled source of College folklore. More recently we also said goodbye to Scott Grocott after 5 years as Head of Buttery.



Admission of the Master in 2003: Gary Love (carrying the College Mace) followed by Professor Duffy and Mr Robinson (Photo: Nigel Hawkes)

Last September, Lorraine Wilson joined the College and it is a testament to how well she has fitted in that she is very firmly established within the Porter team. We were also delighted to welcome back Pepa Forsyth as Relief Porter.

In the New Year, Tess Leyland joined as Schools' Liaison Officer in the Academic Office, a particularly difficult role during the pandemic, but she has nonetheless made great progress in widening our outreach programme. Having largely transformed the Academic Office over the last few years, Helen Williams sadly left us in July to pursue her career with the University. We welcomed Cei Whitehouse as Academic Registrar in August, joining us all the way from St John's.

Following Melissa Guenigault's departure from the College Office and Jemma O'Grady's temporary departure (on maternity leave), we welcomed Lora Misikova as Junior Management Accountant and Laura Pickard as HR & College Office Administrator (as maternity cover). Luzanne Prickett was promoted to Management Accountant after successfully completing her professional accountancy qualification.

There were also promotions for Iain van Gardingen and Usman Zia-Ul-Haq in the Computer Office following a minor staffing restructure. Within the Maintenance Department, Jamie Richardson was appointed as Head of Building Services (and College Health & Safety Officer) and Brian Beach was appointed as College Painter following the resignation of John Blaze who had been with the College for four years.

As College members will appreciate, the pandemic decimated conference and summer school activity for both 2020 and 2021. Consequently, the College had to make the very difficult decision to reduce posts directly related to conference activity. We wish Imogen Jackaman and Bronius Maciulskas the very best for the future. Three further members of staff resigned their posts: Michelle Fordham (Housekeeping), Alex Day (Alumni & Development Office), and Matilda (Tilda) Watson (Archivist) who decided not to return after maternity leave.

C H Foord

IX EVENTS AND COMMEMORATIONS

Over the last year, as Magdalene Members will be aware, the Development Office has run a virtual events programme for alumni, students, Fellows, and friends. For those who were unable to attend an event, you can catch up on a selection of our past virtual events on the College's YouTube account at: www.youtube.com/c/MagdaleneCollegeCambridge. It is our hope to be able to resume a physical event programme from September 2021, COVID permitting.

In the Michaelmas Term we hosted virtual zoom meetings for our alumni in Asia and the USA, and held a digital benefactors' event for our donors. Former Master Dr Williams discussed 'Tribalism's Troubles' in a joint event with the PM Glynn Institute, the public policy think-tank of the Australian Catholic University, and we went 'Inside the College Magazine' with the editor, Professor Raven, Dr Steele, and the artist Lorna May Wadsworth (see 'Painting the Master', *Coll Mag* No 64, 2019–20, pp 105-08). Dr Gaffney talked about his research on Ice Age islanders, and the Master lectured on the Nuremburg Trials 75 years on. We ended 2020 with a fabulous film of the Magdalene College Choir carol concert.

During the Lent Term the Master chaired a timely discussion on the legal implications of Brexit, we hosted a careers talk for current students, and Dr Thom led a Pepys-themed virtual wine tasting. Professor Cooper chaired a webinar with Magdalene's young female authors celebrating International Women's Day, Professor Anthony King (1986) winner of the Military Book of the Year discussed his book *Command*, Professor Burchell made us think about the future of work, and Mrs Marsh (1997) led a talk with our former Blues about the experience of rowing in the Boat Race.

In the Easter Term we offered a similarly diverse programme featuring our University Challenge Team (who of course reached the final), a talk on 'Sea Monsters and Fake News' by Professor Raven, and a roundtable discussion led by the President on the fascinating discovery of Mary Astell's collection found in the Old Library. Our 'Now that's What I Call Lockdown!' event with Honorary Fellow Katie Derham (1988), Richard Morrison (1973), and Charles Kaye (1969) looked at our use of music during the pandemic, and we contemplated life on other planets in 'The Zoologist's Guide to the Galaxy' with Dr Arik Kershenbaum (1984).

X ALUMNI AND DEVELOPMENT

1 REUNIONS

It was with regret that all Reunions were cancelled owing to the coronavirus pandemic. We hope to reschedule these events at a future date.

2 AWARDS AND ACHIEVEMENTS

Dr P J Abbott (1988): OBE for service to British foreign policy

E Balani (2016): joint winner of the University of Cambridge
Outstanding Student Contribution to Education – Innovative
Practice Award

H C Bellingham (1974): raised to the peerage as Baron Bellingham of
Congham in the County of Norfolk

Dr A Binder (2014): Winner of the Beutschen Studienpreis 2020

H L M Bretscher (2016): joint winner of the University of Cambridge
Outstanding Student Contribution to Education – Inclusive
Practice Award

N Bridson Hubbard (2016): Osprey of the year

Dr E J Feuchtwanger (1944): OBE for services to Anglo-German
understanding and history

M J Frobisher (1987): OBE for services to the NHS and Railway Workers
during COVID-19 and voluntary service in the Army Reserves

D Gaffney (former Bye-Fellow): JRF in Archaeology at St John's College
Oxford from October 2021

B W Gilchrist (1984): OBE for services to the British Consulate-General
in Hong Kong

P C Green (1986): Barrister of the Year 2020

N L Herbert (1982): raised to the peerage as Baron Herbert of
South Downs

R Hoyer (former Research Fellow): Awarded Imperial President's Award
for Outstanding Early Career Researcher and the Rosenhain Medal and
Prize from the Institute of Materials, Minerals and Mining

Prof R Kilner (former Research Fellow): FRS

Prof C J Knight (1982): OBE for services to the NHS and people with
heart disease

R E Mullan (1995): QC

E V Penn (2005): OBE for services to Conservation and Charity

J A G Petter (2017): University of Cambridge Sports Club
 Personality Award and joint winner of the British Universities
 & Colleges Sport (BUCS) Dan Porter Award
 M Rumney (1990): Special Award from the Royal Television Society
 The Hon Lord Sandison (1992): Senator of the College of Justice
 Dr J D Shanklin (1973): Antarctic glacier named ‘Shanklin’ in honour of
 his part in the discovery of the Antarctic ozone hole
 E Walters (2016): highly commended place in the University
 of Cambridge Inclusive Practice Awards
 Prof G S Yip (1966): Induction in the Thinkers50 Hall of Fame

3 SELECTED PUBLICATIONS

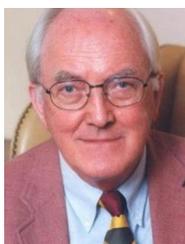
- *S Baynes (1979), *The Forgotten Country House: The Rise and Fall of Roundway Park* (2019)
- *T Bayfield (1965), *Deep Calls to Deep: Transforming Conversations Between Jews and Christians* (2017); *Being Jewish Today: Confronting the Real Issues* (2019)
- B X Brandreth (1994), *Shakespearean Rhetoric: A Practical Guide for Actors, Directors, Students and Teachers* (2021)
- Dr H N A Brigstocke (1961), *Giulio Cesare Procaccini, Life and Work* (2020)
- Dr Donald F Bur (1985), *Law of the Constitution: Consolidated* (2020)
- *M Chick (1977), *Changing Times: Economics, Policies and Resources Allocation in Britain since 1951* (2020)
- *J Crossley (1958), *The Perils and the Prize* (2020); *Churchill’s Admiral in Two World Wars* (2020)
- *D Gaffney (former Research Fellow), *Materialising Ancestral Madang: Pottery Production and Subsistence Trading on the Northeast Coast of New Guinea* (2020)
- *R Gurney and J Macfarlane, *Timothy Samuel Gurney* (2020) [marking what would have been the 80th birthday of T S Gurney (1960)]
- *S Haskell (1951), *Saint Paul and Christian Charity* (2020)
- A J H Lownie (1981), *Traitor King: The Duke and Duchess of Windsor in Exile* (2021)
- J F Nugee (1974), *The Wisdom of Markets and the Madness of Crowds* (2021)
- *S Romer (ed), *James Julian Malpas: A Day of Unusual Measure: Selected Poems, Extracts & Letters* (2021) [J J Malpas (1977)]
- *The Revd Dr D J Weekes (1956), *John Buchan’s Kid Brother* (2020)

*M Wheeler (1967), *The Athenæum: More than Just Another London Club* (2020)
 Dr L Williams (1988), *Comet Weather* (2020); *Miracles of Our Own Making* (2020); *Blackthorn Winter* (2021)
 Prof A C King (1986), *Command: The Twenty-First Century General* (2019)
 C R Sweeney-Baird (2012), *The End of Men* (2021)
 R F Kuang (2018), *The Burning God* (2020)

**We are grateful to these authors for presenting copies of their works to the College Library.*

4 MEMBERS' DEATHS (reported to mid-July 2021)

R C Cotton, MBE (1943); K Edwards, CBE (1944); I MacDonald (1944); P W Flinn (1945); I S Mant (1946); C Mares (1948); L F Hanbury (1949); R M Brew (1950); Dr M L N Willoughby (1951); S M Haskell (1951); M W Chester (1952); M V Kenyon (1952); B M Jones (1952); D A Innes (1952); Revd N E Shephard (1953); Dr T F Hering (1953); D R Wood (1954); J G Cleverly (1954); J T Lockwood (1954); J K B Burke (1955); R C G Jenyns (1957); J M Leach (1957); Dr P King (1958); C F J Berry (1959); A J Richards (1959); H J Campbell Pulley (1960); Dr J Emerson (1960); A G D Inglis (1961); T R Negus (1962); Dr S K Land (1964); Professor W R Allen, CBE (1966); Dr J W Deacon (1968); E D Towne (1972); W G Lamarque (1973); J D Recknell (1973); A G Mackintosh (1974); K Bentsi-Enchill (1976); J Barnard (1979); E L Thomas (1998).



Professor Denis Donoghue, (1 Dec 1928–6 April 2021).

Denis Donoghue, six foot seven inches tall and militarily upright well into his eighties, with an apparently effortlessly patrician manner and a golden speaking voice (he had trained as a professional lieder-singer) was a commanding figure in every sense of the word. Born in 1928 in the provincial Irish town of Tullow, Co Carlow (his mother's birth-place) but raised in a police barracks in Warrenpoint on Carlingford Lough in County Down, he was the son of a sergeant in the Royal Irish Constabulary who been assimilated into the Royal Ulster Constabulary after the partition of the island.

As a Catholic police-sergeant in Ulster's militantly protestant police-service, Donoghue senior had no chance of promotion, and much suspicion to endure. Denis, who loved and revered his father 'in a style that never presumed on intimacy', neither forgot, nor ceased to resent, the discrimination against Catholic nationalists that was the norm in Ulster until the 1970s, a resentment explored in his rebarbative 1990 memoir *Warrenpoint*. A stellar graduate in Latin and English from University College Dublin, he was initially unsure of his vocation, considering both the law and music, and he served an unhappy spell in the Irish civil service before settling for academia. As Professor of Irish and American literature first at his Alma Mater of UCD (from 1967), and then from 1979 at the University of New York, he established himself as an authoritative and charismatic interpreter of both poetry and prose, equally at home lecturing (usually without notes) on the satires of Jonathan Swift, the novels of Henry James, the aestheticism of Walter Pater, or the poetry of Dickinson, Yeats, or Eliot: he was a noted and innovative interpreter of Yeats in particular, and directed the first of the now famous annual Yeats Summer-Schools in Sligo. An intellectual aristocrat and a firm believer in the autonomy of art, he scorned – and Denis did a magnificent line in scorn – what he considered the fashionable ideological fads – whether Marxist, post-colonial, or post-modern – that in his view commodified or trivialised literature, and he once controversially characterised the purpose of university lectures as providing 'an opportunity for students to sit quietly and listen to a great mind communing with itself'. The author or editor of more than thirty academic books, he also reached and influenced an audience well beyond academia with witty, lucid, and sometimes devastating essays in periodicals like the *New York Times* and the *New York Review of Books*.

Denis's year as Parnell Fellow (1997–98) at Magdalene coincided with the Irish Referendum on the culmination of the Peace Process, and the Good Friday Agreement, a process he viewed with a scepticism shaped by the tribulations of his Ulster Catholic upbringing. He had to be dissuaded from flying back from New York specifically to vote against it, though his eldest son David, a distinguished Irish civil servant, had played an important role in its shaping. His decidedly 'green' nationalist sympathies were unfashionable in an age when Irish historical and cultural studies were undergoing 'revision' inimical to that kind of commitment. Equally unfashionable was his deep but unshowy

Catholicism, maintained even after the breakdown of his marriage, and his subsequent long and happy partnership with Melissa Malouf (whom he eventually married), made him feel that to take communion was impossible. Despite their separation, he helped look after his wife Frances till her death, and he was proud of their eight children, not least ‘my brilliant daughter Emma’, the novelist.

An ebullient talker and combative listener, he remained active in print and on the platform into his ninth decade. My own last meeting with him a few years ago over dinner in a New York restaurant evolved into an animated conversation about Irish poetry that continued in his austere flat till 3.00 am, ending only because the whiskey ran out.

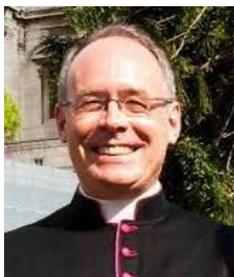
He was a sparkling interlocutor, a brilliant critic, and a beacon of academic integrity.

E Duffy



David L Gardiner, MBE (1931–3 Feb 2021). Born in Harrow, David grew up in Bournemouth, where his father was the manager of a branch of the Hope Brothers clothing retail chain. After two years’ national service in the RAF, rising to the rank of squadron leader and gaining his wings, he arrived at Magdalene in 1950 with a bursary to study natural sciences. On graduation, he moved across town to teach physics at the Leys school, from where he retired after 45 years. At the Leys, he was housemaster, head of science, and deputy head teacher, making him something of a ‘Mr Chips’ figure among the boys and staff. He was a lifelong Labour party member. The writer Christopher Hitchens fondly remembered, as the 1964 general election approached, that ‘a number of Labour stickers were to be seen on our teachers’ cars’. Most prominent was one slapped on to the rusted bumper of David Gardiner’s ageing van. In his village church in Dry Drayton, near Cambridge, he played the organ, led the choir, preached from time to time, and was for years a key member of the parish council. As chair of the Cambridge Housing Society, he championed the provision of affordable housing, and was appointed MBE in 1998. He and his wife Rosemary (née Lund) were gregarious entertainers in their beautiful old cottage and hosted large parties for Leys colleagues and alumni, the local

church, and his school's Saturday Club which supported elderly people in the local community.



Mgr Mark Anthony Edmund Langham (28 Nov 1960–15 Jan 2021). Mark Langham was born into a strongly Catholic family: his mother Maureen was a nurse from County Galway, his father, Bernard, an engineer who converted from Anglicanism to a thoughtful Catholicism that communicated itself to their children. Like Mark, Bernard was a gifted musician, and eventually became the choirmaster of their

parish, St Edmund's, Whitton. Mark liked to tell how, one Monday morning when he was working in Westminster Cathedral, Cardinal Hume had greeted him with 'I was in your home parish for a Confirmation yesterday, Mark': 'That's nice', said Mark, 'how was it?' 'A lovely mass' said the cardinal, 'but there was such a dreadful man in charge of the music'. 'Ah, yes,' said Mark, 'that'll be my father'!

Mark already felt the pull of the priesthood in his mid-teens: but his parents thought he was too young for such a decision, and felt he should get a degree. So he came up to Magdalene in 1979 to read Classics, switching to History for Part II. Cheerful and hard-working, he was also shy, and sometimes reluctant to express his own opinions. His History DOS once made him down a glass of Irish whiskey at the start of the supervision to encourage him to talk. That would be frowned on nowadays, didn't do very much for his essay technique, and left him with a lasting dislike of whiskey.

Mark blossomed at Cambridge. He threw himself into the life of the Roman Catholic Chaplaincy, then erratically presided over by the future Archbishop Couve de Murville, whose portrait Mark later painted. Mark had a fine tenor voice, and was the heart and soul of the Latin Mass choir: but he was equally involved in the Magdalene Chapel Choir, and developed a love and knowledge of the Anglican choral tradition that was to be a huge asset in his later ecumenical work. Despite his shyness he could be also very funny, and his sense of vocation certainly didn't inhibit his enjoyment of life. His friend the journalist Melanie McDonagh recalled a bibulous Ash Wednesday, downing cocktails with him in a bar in Magdalene Street, once she'd assured him

that absolutely no food was involved, so the Lenten fast was unbroken. And in his final year there was a well lubricated Choir dinner that lasted till midnight, when someone thought it would be fun to punt to Grantchester: the river was in flood, but Mark and five others liberated a locked punt from somewhere, and, sometimes white-water rafting, made it to Grantchester and back, in time for the 7 o'clock morning prayer, Mark leading five wrecked and bedraggled companions in damp DJ's into the Fisher House chapel. By now he had developed the sense of style that became his hallmark: when the time came to tell friends he'd been accepted for the priesthood, the venue he chose was the Oyster Bar in Harrods.

He was sent to the Venerable English College in Rome, the seminary for high-flyers: it used to be said that to be an English Bishop you had to be male, baptised, and trained at the Venerabile, and only the first two requirements could be waived. Mark flourished there: he formed a lasting love of Rome, acquired extravagantly Italianate Latin, grew a dreadful beard, and fearlessly stood at his easel amid the crowds of tourists and shoppers, to paint the Campo di Fiori. And his musical talents and sense of the absurd found their outlet in writing the Venerabile College pantomimes.

Ordained by Cardinal Hume in 1990, he returned to England, where he had a steep learning curve as precentor at Westminster Cathedral, with responsibility for its world-class musical traditions, and then as parish priest of St Mary of the Angels, Bayswater, a vibrant multi-racial area that houses the Portobello Market and the Notting Hill Carnival. His immediate predecessor there was Fr Michael Hollings, a maverick saint, but a tricky personality with a patrician manner and an explosive temper, who spent hours every day in contemplative prayer and opened the presbytery to the local street people, often surrendering his own bed to one of them and sleeping instead on a broken-down sofa: anyone trying to establish a more conventional regime was bound to suffer unfavourable comparisons. For Mark, fastidious by temperament, loving order, beauty, and sanitary surroundings, it was a challenge, which he handled with consummate tact and skill.

So when in 2001 a new administrator was needed at Westminster Cathedral, Mark was the obvious choice. He brought imagination and relish to the job. He'd once had to list ten reasons why he wanted to be a priest: as number ten he'd written 'I would like to wear gorgeous

vestments'. There were plenty of those at Westminster. He loved the outstanding music, the magnificent building that he felt made people want to say their prayers, the history it all embodied. No snob, he nevertheless enjoyed the contact with the great and the good that the cathedral entailed. He had ambitious plans to complete the mosaic decoration up to the roof, set about finding benefactors, and established a working party to devise a suitable decorative scheme.

But Mark didn't easily delegate, he seldom took a holiday, he lived over the shop, he worked too hard: he developed a bad case of shingles, and came close to burnout. Eventually, Cardinal Murphy O'Connor decided he needed a move, and sent Mark back to Rome, to work in the Pontifical Council for Christian Unity under Cardinal Walter Kasper. It was a job tailored to his talents; he had special responsibility for relations with Anglicans and Methodists, and was the minder for visiting officials from those churches when they came to Rome. Mark's love of the city, affection for Anglican liturgy and his natural warmth and kindness made him an ideal ecumenical diplomat: he formed a close and enduring friendship with our former Master Rowan Williams among many others, and he began a study of the Anglican Caroline divines which he eventually published.

But it was then that the leukemia that eventually killed him was first diagnosed. It was a devastating blow for a relatively young man, but he shared it with very few, unwilling to be defined as the man with the awful disease, and, outgoing as he was, he had an instinctive reserve that made it hard to show or share his vulnerability.

And then in 2013 he was invited to come back to Fisher House as chaplain. Cambridge had been his golden time, and he eagerly accepted. His natural gifts and subsequent experience had prepared him well: his warmth and sense of fun, his gift of recall for names, faces, birthdays, significant anniversaries, his deep affection for Catholic traditions and culture, his relish both for kitsch and for elegant style, his ecumenical commitment to outreach to other Christian traditions. Style he had in abundance: he devised and wrote outrageous pantomimes involving students and dons, held annual Eurovision Song Contest parties, transformed the Chaplaincy's roof-terrace into a lavish herb-garden dedicated to the Virgin Mary, mounted art exhibitions of the work of members of the congregation, set up each year an astonishing 'presepe' with hundreds of miniature nativity figures, lovingly crafted buildings,

and a working mill-wheel. He was a gifted preacher, whose every sermon began with endearingly self-mocking anecdotes. He had a sympathetic ear, he was a wise and non-judgmental listener. He liked and admired the people he ministered to – the dons who supported the chaplaincy, the student volunteers for the nightly soup runs, the fearless undergraduates at all-night vigils, sallying out into the darkened Cambridge streets to invite passers-by into the chapel to light a candle and say a prayer, something he believed his generation would never have had the bottle to do. And he was delighted to be given Sunday dining rights at Magdalene, and became a frequent presence in Chapel and at High Table.

But always in the background, there was the lonely battle with leukemia: fresh drug trials, ever more frequent hospital consultations, and every winter, a deepening struggle with chest infections. Then came lockdown, and the collapse of his immune system. His Basset-hound puppy Audrey was a help, as well as a handful, and he used their early morning walks through a now deserted city to compile a book of strikingly beautiful photographs.

With the help of his doctors Mark kept his cancer at bay for twelve years, and the last eight of those years he knew had been the crown of his priesthood. He fought on doggedly, hopeful that there would be more time, more to be achieved. But when it became clear he would not recover, with characteristic concern for order and for others, he planned his funeral, prepared a list of instructions for his executors, and sent a farewell message to the congregation.

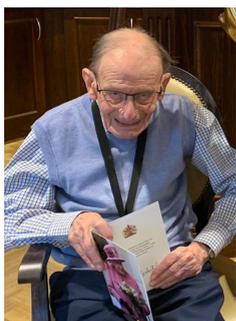
He was a good man, a great priest, and a proud alumnus of Magdalene.

E Duffy



Roger Geoffrey Luxton, OBE (1947–12 September 2020). Born in Royal Leamington Spa to Muriel (née Hand), a housewife, and Geoffrey Luxton, a civil servant with the Post Office, the young Roger moved first to Edinburgh, where he attended Daniel Stewart's College (now Daniel Stewart's and Melville College), and then Barnet in Hertfordshire where he

went to Queen Elizabeth's School for Boys. He matriculated at Magdalene in 1965 taking a degree in geography, and, following teacher-training at Nottingham University, taught geography at Alleyne's School (now the Thomas Alleyne Academy) in Stevenage. Appointed deputy head of Stevenage Girls' School (1971–86), he then led the Technical and Vocational Education Initiative which aimed to supply more computers to schools in Barking and Dagenham in east London. In the early 1990s he became Principal Inspector of Schools for Barking and Dagenham, and appointed OBE in 1999 for services to standards in education. From 2001 until 2009 he was Principal Adviser and finally Director of Children's Services at Barking and Dagenham. In retirement he studied for Open University degrees in maths and languages, and served as a governor of the Thomas Alleyne Academy. He is survived by Pauline (née Little) whom he met as a Vith former at a local Young Liberal Club meeting.



Braham Myers, MBE (1921–24 May 2021). Born in Harrogate, Braham Myers attended Charterhouse and won a scholarship to Magdalene in 1939. He studied Classics for two years before he was called up to the army serving in the war as a gunner. While reconnoitring a gun position on the Dutch-German border in 1944, he stood on an anti-personnel mine and lost the lower part of his right leg. After a long convalescence, he returned to Magdalene to complete a degree in History. The friends he made here were his friends for life. After working for the Ministry of Education he returned to Yorkshire and became managing director of the family firm in Leeds. JW Myers Ltd Headwear Manufacturers was at one time the largest maker of flat caps in the country. He dedicated many years to serving his local community, serving on the boards of the Yorkshire Area Health Authority, High Royds Hospital, BLESMA, the charity for limbless ex-servicemen, and the William Merritt Centre for the disabled. His charity work was recognised in 1985 with the award of an MBE. Braham spent his last months and his 100th birthday (pictured above) at Mayfield View Care Home in Ilkley, where he lived with his wife of nearly 70 years, Lola, whom he met while at Cambridge.



Dr Jeremy S Metters (1939–20 November 2020). As his *British Medical Journal* obituary put it, as the last person in England to hold the position of HM Inspector of Anatomy, Jeremy Metters could be said to have worked himself out of a job. Born in Havant, Hampshire, the son of Lieutenant Commander Thomas Lee Metters and his wife, Henrietta Currey, he was educated at Eton and came up to Magdalene in 1957. After graduation

he enlisted at St Thomas' Hospital Medical School, where he met his wife, Margaret Howell. After house officer jobs at St Thomas' and Reading he spent two years as a lecturer in obstetrics and gynaecology at St Thomas' before joining the Department of Health and Social Security (DHSS) in 1972 and where he was to spend the next 33 years. One of the roles he most enjoyed was as secretary to Mary Warnock's Committee of Inquiry into Human Fertilisation and Embryology in 1984. Between 1989 and 1999 he served as Deputy Chief Medical Officer under five successive Secretaries of State and became involved in high-profile controversies concerning AIDS, the MMR vaccination, and BSE. Appointed HM Inspector of Anatomy in 1999, he chaired a two-year inquiry into the retention of brains after post-mortem examinations without relatives' consent. The Isaacs Report of 2003, found that more than 28 000 brains had been retained between 1970 and 1999, with the relatives unaware in most cases. The Report called for the strengthening of the law to prevent covert and unconsented retention in future, and was followed, in 2005 by the establishment of the regulatory Human Tissue Authority, and the abolition, after more than a century, of the post of HM Inspector of Anatomy. Jeremy Metters was not shy of the media but was opposed to what the controversial German doctor Gunther von Hagens described as the 'democratisation of anatomy'. In November 2002 he tried to dissuade Von Hagens from carrying out a public autopsy, saying it would be a criminal offence under the Anatomy Act as neither he nor the venue were licensed. But the event went ahead in a gallery in east London.



Prof Martin Henry Norman Tattersall (1941–30 August 2020). Martin Tattersall was born in Scarborough, the son of Rex and Joan Tattersall, both doctors, and educated at Winchester College, where he was captain of fly-fishing. He arrived at Magdalene in 1959 to read Natural Sciences and where he was a notable athlete, representing Cambridge in a single scull and, in the College eight of 1962,

bumping four other crews. He trained initially at University College Hospital, London, and despite his father's protestations – 'you have the whole world at your feet and you are throwing it away' – he took time off in 1967–68 to travel. He visited Hanoi during the Tet offensive, sold ice-creams to fund his attendance at the Mexico City Olympic Games, and canoed the Little Salmon River in the Yukon. He interned at Vancouver General Hospital, having written a letter of application on the untested assumption that there actually was a general hospital in Vancouver. He served briefly as physician to the Yukon, based in Whitehorse (a cover for further fishing expeditions). On his return to Britain, he moved his interests to oncology. He became a research fellow at the Royal Marsden Hospital in 1971 before moving in 1973 to the United States as visiting fellow at the Harvard Medical School and the Dana-Farber Cancer Institute. Between 1974 and 1976 he was consultant physician at Charing Cross Hospital, London, but in 1977 moved his young family to Australia, as the inaugural professor of cancer medicine at Sydney University, the first professor of cancer medicine in the southern hemisphere. He held this post for more than forty years. A prolific researcher and collaborator, he published some 480 scholarly articles. Initially his focus was on the pharmacology of cancer treatment, but from the mid-1980s, he shifted his gaze towards the practice of being a physician, of what patients needed to know, and how doctors should respond. He dedicated himself to improving the way that doctors communicate with their patients, particularly in palliative situations, pioneering, among other advances, the development of question-prompt lists for people diagnosed with cancer, providing guidance to those facing tumultuous decisions on what information they needed from their doctors, and how best to seek it. Between 1997 and 2008, he chaired the Australian Drug Evaluation Committee, providing independent

scientific advice to government on the efficacy and effectiveness of new drugs. He was throughout his career a vocal critic of the pharmaceutical industry's influence on the medical profession. He sat on the World Health Organisation's cancer committee for more than 20 years and worked on its behalf in Iraq in the early 2000s. He trained and mentored a generation of Australian medical students and oncologists, and supervised more than 20 PhD candidates. He received numerous grants and awards, was made an Officer of the Order of Australia in 2003, and in 2013 was awarded the degree of Doctor of Science at Cambridge. His colleague, Professor Alan Coates wrote that 'he was in a very real sense the father of Australian medical oncology. He created an ideal multidisciplinary unit at RPA (Royal Prince Alfred Hospital), and over the following 40 years combined a dedicated clinical practice with cutting-edge research, particularly in the areas of patient perception of the disease and its treatment and doctor-patient communication.' He was devoted to his wife, Professor Susan Tattersall, a respiratory physician, whom he met on a ward round at the Royal Postgraduate Medical School in 1970. Together, they competed internationally in the World Masters Rowing championships, indulged in the farming of merino wool, and travelled mercilessly, with seven visits in total to Antarctica and the Arctic. In 2003, after a preparatory, week-long ice climbing and glacier rescue course in New Zealand, they completed a multi-day crossing in blizzard conditions of the mountainous and crevasse-ridden island of South Georgia, along the path followed by Sir Ernest Shackleton. As his son wrote, he broke his nose and she her finger, but they emerged with the experience and the story. That, after all, was the point of the exercise.

Development Director's Report

The New Library, the focus of our fundraising efforts for so long, was quietly finished and even more quietly opened for our students in the Lent Term. As of the end of June 2021, we had raised almost £18 million for the building and we are very much looking forward to the day when we can celebrate this magnificent achievement together in person.

The quiet phase of the *Future Foundations* Campaign began in 2015, the public launch took place in March 2017 and we reached our initial target of £25 million last summer. By the end of our financial year, 30

June 2021, we raised more than £28 million for the Campaign thanks to the truly magnificent support of our Members and Friends. Wonderful gifts ranging from £10 to £10 million have collectively enabled us to support our students, our supervision system, College activities, the historic College estate, and to fund the New Library in full.



The New Library (Photos: Matt Moon)

The Magdalene Bursary Scheme has been a great success and hundreds of our students have benefitted from the generous bursaries that the College is now able to offer thanks to the enduring support from Members. We continue to benefit from alumni donors sponsoring undergraduates for the duration of their studies. The scheme, introduced in 2012, has resulted in just under 100 Magdalene undergraduates benefitting from full bursaries worth up to £20,000 for four-year degree programmes to help with living costs. In addition, many more of our students have benefitted from partial bursaries ranging from a few hundred to a couple of thousand pounds per annum. Furthermore, the new Cambridge Bursary Scheme (CBS2) was conceived after a detailed University consultation process and a pilot scheme in which we took part with twelve other colleges. This will be introduced in October 2021. It is clear that many of our Members share Magdalene's belief in needs-blind admission, so much so that hundreds of you have chosen to support our undergraduates. We are enormously grateful, as we simply could not offer the bursaries without your donations.

We plan to celebrate our collective achievement and the end of the Campaign on 2 July 2022, but for now, the *Future Foundations* Campaign continues for its final year. We very much hope for a final flourish. Because of the pandemic, the whirlwind of the global events programme organised for the first three years of the Campaign could unfortunately not be replicated this past year but we did host over 30 virtual events. We are delighted that 1059 Members and 290 Friends signed up to one or more of our events and joined us online this year.

Recordings of all our virtual events to date are available on the Magdalene YouTube channel and can be accessed by visiting the link www.youtube.com/c/MagdaleneCollegeCambridge.

We have been delighted with and so grateful for the warm, generous and perhaps most importantly, kind response from our Members and Friends to our appeal for help particularly during the pandemic. We have received many supportive and kind messages from our alumni in the past year. The Campaign Board, chaired by Mr Andrew Fischer, (1983), has been wonderfully supportive and continues to offer its guidance in shaping the Campaign. I am very grateful to Mr Guy Davison, (1976), Mr Simon Thompson, (1986), Mrs Natasa Williams, (1990), and Ms Diya Sen Gupta QC, (1996). The Directors of the Magdalene College Foundation in the USA, led by Mr Robert Chartener

(1982), Chairman and Fellow-Commoner, have also been remarkably helpful during the past year and we much appreciate the continued service of Mr Geoffrey Craddock (1977), Dr Jason Hafler (2006), The Hon David Brigstocke (1971), Mr Graham Walker (1982) and Ms Suzanna Jembsy (1990).

Given the difficulties we have all faced together, I would very much like to thank colleagues, Members and Friends for their care, kindness and generosity of spirit. Together, we have succeeded in funding the beautiful New Library and continue to work to ensure that our students, despite dealing with an unprecedented set of challenges are able to flourish at Magdalene.

Thank you.

C D Lloyd

A complete list of Members who have supported the College with a donation during the past financial year (1 July 2020 – 30 June 2021) will be published in The Fifth Annual Donors Report in the autumn.



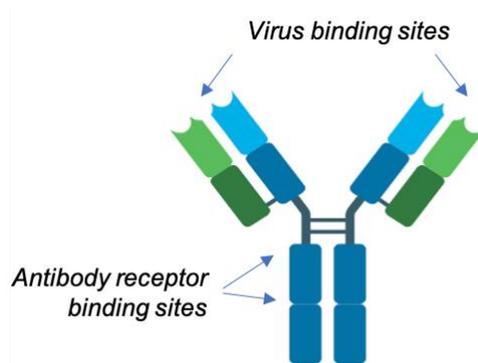
The New Library (Photo: Matt Moon)

LOOKING AT NEW WAYS ANTIBODIES CAN PROTECT US FROM VIRUSES

Thanks to the pandemic, antibodies are finally getting the attention that they deserve. I have been fascinated by these tiny proteins for most of my research career; now everyone else has realised they are pretty incredible too. Antibodies play a starring role in enabling us to recover from COVID-19, as well as being critical for all vaccines and several treatment strategies. However, there are still many unanswered questions about how exactly they work, and how we can use them to our best advantage.

What are antibodies?

Antibodies are made by the B cells of our immune system in response to any infection. They serve to stop all infections in their tracks and prevent further replication. The concept of an antibody was first proposed over 130 years ago, when Emil Von Behring realised that there was something in blood that could protect animals from infections. Behring was subsequently awarded the first Nobel Prize in Medicine in 1901 for his work, but it was to be decades before the biology of antibodies was unravelled further.



The basic structure of an antibody

We now know that antibodies have a unique Y-shaped structure. As shown above, the tips of the arms of the Y are for binding to the virus, and the tail is for stimulating a wide range of immune cells via antibody

receptors. Sometimes, the action of antibody binding to a virus alone can disable the invader. At other times, specific immune cells become activated when they recognise the tail of an antibody, and the immune cell will then destroy whatever is attached to the antibody.

Every person has the theoretical capacity to make millions of different kinds of antibody. This is owing to the impressive capability of B cells to mix and match their antibody genes. Each B cell therefore has a different kind of antibody on its surface. Most B cells are never activated, but if their antibody does finally happen to meet a target they can recognise, such as SARS-CoV-2, then the B cell starts rapidly replicating and releasing antibodies. Hundreds of different B cells are activated each time that a new virus is encountered as their unique antibodies will recognise a slightly different part of the virus.

Antibody testing

During the pandemic many people have asked whether they have antibodies against COVID-19. The way to answer this is to test a blood sample for virus-specific antibodies. Antibody tests for other viruses have been routinely performed in laboratories for decades, and so it has been straightforward to adapt these for SARS-CoV-2. However, the real breakthrough has been the development of at-home antibody testing kits. The concept of anyone measuring their own antibodies from the comfort of their home was unthinkable in 2019, but home testing kits are now widely available.



At home testing of Covid-19 antibodies

It is worth taking a moment to consider what a positive antibody test actually means. At the simplest level, the test shows that the body is making antibodies against the virus. In the pre-vaccine days, this proved that the individual had been infected with SARS-CoV-2. But crucially, a positive antibody test does not necessarily mean that a person is completely protected from the virus. This is because we still don't know exactly what kind of antibody response is needed to prevent SARS-CoV-2 infection. As yet, there is no measurement that can accurately predict the outcome of encountering virus. There are plenty of good guesses, but ultimately we are still uncovering new ways in which antibodies can protect us from viruses.

New mechanisms of protection

Antibodies have long been thought only to work outside of cells, but it is increasingly apparent that this dogma needs a rethink. We now know that some antibodies can also be functional inside cells. This is owing to a very unusual antibody receptor called TRIM21. This receptor was discovered by the James lab at the MRC-Laboratory of Molecular Biology on the Cambridge Biomedical Campus in 2010. I joined this lab as a Junior Research Fellow in 2015 and my post-doctoral research has uncovered some unexpected new ways in which this antibody receptor can work.

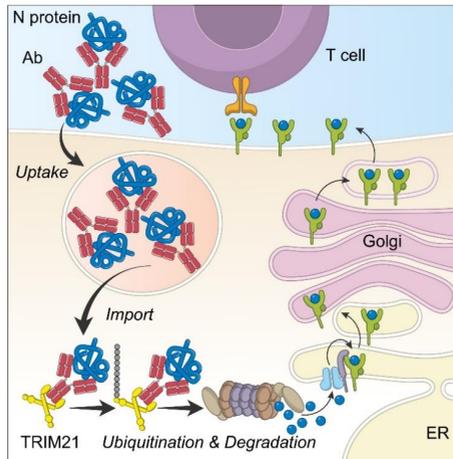
TRIM21 recognises antibodies that enter the cytoplasm of cells bound to virus, and then targets these for destruction by a complex called the proteasome. The end result is that the virus is chewed up into lots of tiny fragments. All humans express TRIM21 in virtually every cell of our body, so this antibody receptor essentially acts as a last line of defence against invading viruses before they begin replicating in our cells.

Previous work has largely focused on studying TRIM21 activity during adenovirus infection. Adenoviruses often cause colds in people, but have recently gained fame as the basis of the Oxford/AstraZeneca vaccine. Adenoviruses can enter cells with antibodies already attached, enabling TRIM21 to get to work as soon as it recognises its target.

However, I have been studying a rather obscure virus of mice called lymphocytic choriomeningitis virus (LCMV). At first glance, this seems like an odd virus to choose, but actually LCMV has been used for decades by immunologists to work out the finer details of our immune response. LCMV is also related to Lassa fever virus, which is an

understudied virus of humans that causes a nasty Ebola-like disease in West Africa. The more we can learn about these viruses the better.

In 2018, I first showed that TRIM21 was somehow protecting mice against LCMV; mice without TRIM21 could not recover from infection. More specifically, I found that this protection required the presence of antibodies specific for a protein of LCMV called the 'N protein'. The N protein is wrapped around the viral genome, hiding the genome from recognition by the cell. Adenovirus does not have an N protein, so this hinted that a different protective mechanism by TRIM21 was at play. And although we could not know this when we started experiments, the importance of viral N proteins has massively increased over the past year; SARS-CoV-2 also has an N protein.



How antibodies can lead to activation of T cells via TRIM21 (Image used with permission from MRC-Laboratory of Molecular Biology)

Many experiments later, I have now been able to show that N protein antibodies are important because they induce TRIM21 to break up the N protein into small fragments known as peptides. These peptides are then processed by the cell and displayed on the cell surface. The peptides therefore act as a signal that the cell is infected. Another type of immune cell called a cytotoxic T cell can then come along, recognise these peptides and kill the associated cell. This series of events is illustrated above. The pathway between antibodies, TRIM21, and T

cells is a brand new example of cross-talk between the B cell and T cell arms of the immune response. This discovery has important implications for the sort of virus control outlined below.

Implications for vaccination

Vaccination is the process of tricking our body into making antibodies against an infectious agent that the body hasn't yet seen. Historically, vaccines have been made by either weakening or killing the offending virus, and then injecting the resulting vaccine into people. For COVID-19 vaccines, however, a range of cutting-edge technologies have been employed that focus on a single viral protein instead. This is the spike protein.

Spike protein is the part of the virus that enables SARS-CoV-2 to enter our cells. Virus replication only happens inside cells, so inducing antibodies that block viral entry and preventing more particles from being made. All vaccines currently licensed in the UK (Oxford/AstraZeneca, Pfizer/BioNTech, and Moderna) all work by getting our own cells to make copies of the virus spike protein. The Oxford vaccine achieves this by introducing the spike protein gene via a harmless adenovirus vector. The other two vaccines deliver the spike protein gene directly as mRNA wrapped in a nanoparticle. When our own cells make the spike protein, our immune response will recognise this as 'foreign' and start making antibodies and also T cells specifically to target this protein.

However, as discussed above, SARS-CoV-2 virus is more complicated than just a spike protein.

Following SARS-CoV-2 infection, we know that we actually make most antibodies to the N protein and not to the spike. It is likely that the new role for N protein antibodies and TRIM21 in protecting against LCMV infection is also important for SARS-CoV-2. Work is currently underway to explore this further. Together with other scientists, I have been proposing that vaccines that induce both spike and N protein antibodies could be valuable, as they would add another layer of protection to our immune responses.

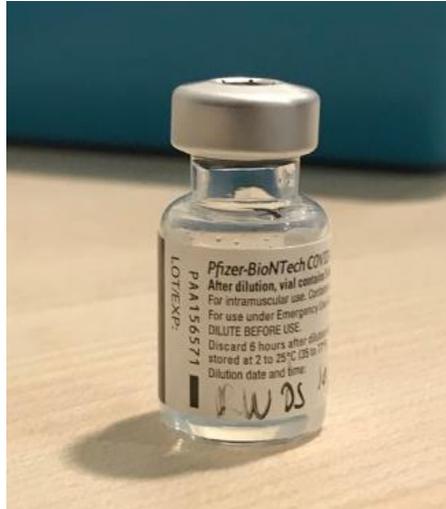
Another reason why vaccines that include the N protein could be important is because N protein is highly conserved. This means its mutation rate is very low and thus the sequence does not greatly change. This is noteworthy for two reasons. First, it is possible that protective

immune responses against SARS-CoV-2 N protein could also protect against other related coronaviruses such as MERS. Second, N protein-based vaccines may be more effective in the face of new virus variants. There has been significant concern about the efficacy of current vaccines as new variants of the virus are emerging. Although the latest results indicate that the spike vaccines should still be protective, vaccines that also target the N protein are likely to be effective for longer.

Final thoughts

Antibodies are the cornerstone of our immune response to all things infectious. They can work in a wide variety of ways because of very complicated production and activation systems, and despite more than 100 years of research we are still uncovering new aspects of their biology. I am optimistic that this recent surge of interest in antibodies will translate into improved knowledge as well as new vaccine and treatment strategies. Lastly, I know that I am very glad of my vaccine-induced SARS-CoV-2 antibodies, and I hope that you all can be too.

S Caddy



A MASTER OF MAGDALENE FOUNDER OF THE NHS?



Drawing by Sir David Low (c 1945)

Henry Willink was Master of Magdalene from 1948 to 1966 (having been nominated by the outgoing Master, A B Ramsay). But before that he had practised at the Bar as a commercial lawyer, and been a Conservative MP for Croydon North since 1940. His abilities were soon recognised at Westminster, and in September 1940 he was appointed Special Commissioner for the London Region, with responsibility for those made homeless in the Blitz, co-ordinating the efforts of 101 local authorities. In November 1943 Churchill appointed him Minister of Health in his wartime Coalition Government. Within three months of being in post, Willink produced a White Paper proposing a 'free and comprehensive' National Health Service (February 1944). However, it was not until July 1948 under a Labour Government that the NHS as we know it was finally launched. By this time, Willink was Master; he later chaired a number of government commissions of inquiry; in 1957 he was created a baronet 'for public services'.

In 2017, as the seventieth anniversary of the National Health Service approached, the Conservative Secretary of State for Health, Jeremy Hunt, at the Party Conference in October claimed that it was a Tory minister who was 'the true founder of the NHS'. This claim (repeated by his successor Matt Hancock in November 2019) was received with incredulity and outrage by the Labour Party guardians of its own historiography and the reputation of Aneurin Bevan.

The popular perception probably was (and still is) that Bevan was indeed the politician who (in the judgment of historian Peter Clarke) 'transformed a pipe-dream into an enduring British institution'. However, it was not only Conservative ministers who wanted to promote a reconsideration of the origins of the NHS, but a number of journalists and historians too. As archival investigators got underway, a more complicated reality began to emerge. Surprisingly, perhaps the key reassessment came with a BBC television production in association with the Open University, a series entitled 'Blitz: the bombs that changed Britain'. Episode 1, 'London' (23 November 2017, repeated October 2020 and again on 12 May 2021) developed the thesis that it was the disaster of the bombed-out residents of Martindale Road in Docklands (who were killed in a makeshift shelter which received a direct hit) which led to the appointment of the Special Commissioner for the London homeless. The programme highlighted the work of Henry Willink, 'a remarkable MP', in this role, praising his resourcefulness in overseeing 200 rest centres, finding accommodation for re-housing 400,000 people, and writing an innovative report, *The care of the homeless*, which made a comprehensive set of recommendations. The point was strongly made that it was his performance as Special Commissioner which led directly to Willink's being appointed Minister of Health, charged with giving administrative form to the health proposals of the Beveridge Report (1942). The origins of the NHS were thus examined with scarcely even a nod to Aneurin Bevan; the second half of the hour-long programme in fact turned into something of a celebration of Willink's achievements, 1940-45. Two of his grand-daughters were interviewed; they and the viewers were shown copies of his official report on the 'homeless', his White Paper *A National Health Service*, and his private memoir, together with several fine contemporary photographs, and a Movietone News film-clip in which Willink spoke of his proposals.

In tracing an illuminating connection between the Blitz and Willink's appointment as Minister of Health, the programme perhaps paid too little attention to the major contribution which Willink made to the three-day parliamentary debate on the Beveridge Report. He enthusiastically hailed it as a document of 'conspicuous integrity' and pledged himself to support the government in implementing Beveridge's health proposal, and 'hopefully improving upon it' (18 February 1943). A few months after this notable speech, the prime minister decided to

remove the then Minister of Health, Ernest Brown, and replace him with Willink. Among other considerations, perhaps it was felt that Willink as a professional man, an experienced legal advocate, would have more success in persuading the doctors. Although Brown had made a start, his proposals were comprehensively rejected by the British Medical Association. Willink therefore decided, reasonably enough, that a compromise scheme was going to be needed. General practitioners would be allowed to continue under established arrangements as independent contractors or private practitioners, but most, it was hoped, would become salaried state employees (although this was something the BMA did not like). There was thus to be a nationally co-ordinated scheme, 'free and comprehensive' indeed, but essentially pluralistic, and therefore more complicated than the fully nationalised state-run organisation which the Labour Government established in July 1948. Willink's scheme was in some ways similar to the 'internal market' in health set up after 1989, and it may well be that the long-term future of the NHS will be less state-centric, and more like the scheme Willink had envisaged.

The Willink proposals were never implemented. One difficulty which he felt acutely was the intransigence of Lord Moran, President of the Royal College of Physicians, who was also Churchill's personal doctor ('Woodbine Willy'). It is possible that the rank-and-file membership of the BMA might have been more biddable. But a crucial Representative Meeting at which Willink felt 'much might have been settled', had to be called off because large meetings were prohibited at the height of the German flying bomb and rocket campaign of 1944. He had prepared a revised White Paper scheme, making it more agreeable, he thought, to both Conservative sceptics and the medical profession. His new White Paper was printed but it was never published – and his carefully prepared speech to launch it was at the last moment vetoed by Churchill. The prime minister, it seems, had been persuaded by Beaverbrook that the speech and the revised White Paper were 'inexpedient', more likely to lose votes than gain them in the general election now looming.

Was Churchill right? Well, the Conservatives lost the election in July 1945 in any case, although Willink retained his seat. It is perhaps surprising for us today to have a reminder that a national health scheme might be a vote-loser. The Mass Observation survey to ascertain public

opinion in 1943 found that roughly half the population was opposed to any major change in health provision, with only a quarter being even interested.

Willink was philosophical about the loss of his scheme, and its eventual replacement by a more radical solution. When he wrote his private memoir ('As I remember', 1968) he was notably magnanimous:

From a purely selfish point of view, it resulted in my successor, Aneurin Bevan, being regarded as the Minister mainly responsible: but in full sincerity I give him credit for one wise and important change from the scheme that was put forward by the Coalition Government – the decision that the Hospital Service must be a national service, not a service still divided into two sections – Voluntary [charitable] Hospitals and Local Authority Hospitals. I do not think the Conservative Party would have agreed to this big change, but the financing of Voluntary Hospitals in the years after the War would have been impossible, and it would, I think, have been impossible to organise a national plan for the hospitals of the country as a whole.

The differences between Willink's final scheme and Bevan's actual one have been exaggerated. It is worth pointing out as well that if Willink was frustrated by having to give considerable ground to the medical lobby, after endless talks, the same was also true for Bevan, who had mighty battles of his own with the BMA (he had to concede a measure of flexibility to consultants). But Bevan had a large Labour majority in parliament behind him, and was less subject to prime ministerial intervention. The National Health Service launched in July 1948 was the result of six long years of intensive preparation by, and cumulative discussion with, ministers of both political parties: it would therefore be surprising if Bevan had not been successful.

To conclude: a Tory minister and future Master of Magdalene was not 'the true founder of the NHS' but Willink was *one* of its founders, and should be recognised as the first government minister actually to formulate proposals for a free and comprehensive National Health Service. The basic principles that Willink brought to the project survived, and Bevan cannot be allowed to monopolise the historical credit for the establishment of what – with all its shortcomings – is the finest domestic achievement of British government in the last hundred years.

R Hyam

PAVLOV'S MAGGOTS

Animal behaviour is guided by interactions with the external environment, by sensory stimuli that the animal encounters and by previous memories associated with them. The brain can also evaluate sensory cues from the environment in the context of behavioural goals and ongoing brain activity, to adapt behaviour to need. What interests me in this is how odour cues are recognised, and used by the nervous system to form memories that can be recalled to guide behavioural decisions. The memory centre of the *Drosophila* maggot (larva) brain, called the mushroom bodies (MBs), is at the centre of my work. Larval MBs have a simpler organisation than fly MBs, but are sophisticated enough to support Pavlovian olfactory associative learning.

The calyx of the MBs is a part of the MBs that processes odour signals to form odour representations used for memory formation and recall. The larva of *Drosophila* has only 21 olfactory receptors in the nose, as compared to 913 in mice, or about 400 in humans. One olfactory receptor binds to one part of an odour molecule and one odour molecule activates a group of olfactory receptors. The numerical simplicity of the larval olfactory pathways has been advantageous for following the pathway of olfactory neurons from single olfactory receptors in the nose to the calyx, to establish the first olfactory receptor map in a memory centre, in any animal. In our early work, this olfactory map served as a platform to understand the principles that govern odour processing in the calyx: MB neurons combine olfactory signals originating from multiple olfactory receptors; a strategy that underlies the high capacity of MBs to represent a large repertoire of odours.

My current goal is to understand the complete network of odour representation for memory and recall by placing the MB function in the context of its inputs and outputs, making use of the whole brain connectome now available for *Drosophila* larva. After working on the olfactory system in rodents in the Brain Science Institute in Riken, Japan, my interest changed to *Drosophila*, and I worked at the University of Tsukuba, Japan, and later at the Institute of Molecular and Cellular Biosciences of The University of Tokyo, Japan, where I laid the foundations of my current work in the Department of Genetics in Cambridge.

Learning and discrimination among sensory objects

The brain forms sensory representations of the external world, manifested as the activity of neurons, the processing units of the brain. Sensory representations in the higher centres of the brain are called 'sensory objects', such as a face, the song of a bird, the fragrance of a flower, the movement of a whisker in a mouse. These are represented in the activity of neurons by assembling the chemical and physical signals received by peripheral receptors. The recognition of sensory objects, and behavioural responses to these, allow animals to adapt behaviour to need. For example, the smell of a fox, previously associated with sheer terror, may alert a mouse and induce it to escape, while the smell of cheese, previously associated with satiety (and fine conversation with other mice after a college meal), will attract them to it. In such ways, the recognition of both sensory objects, learned to be aversive or attractive, helps ensure the mouse's survival.

How are these sensory objects represented in the brain? Computational and experimental evidence has hypothesised that sensory objects can be encoded in the sensory cortex, a brain area that processes incoming sensory information, by the activity of a few neurons, known as a sparse population code. This is composed of a few highly 'selective' neurons that are active only when a very specific input, such as a face which is a representation formed from many physical features, is presented to the eyes. In humans, a small number of neurons in the medial temporal lobe can even respond to the faces of specific celebrities, exemplified by the identification of 'Jennifer Aniston' neurons, that may have been firing with delight at seeing her again in this year's 'Friends' reunion. This way of representing sensory objects increases coding capacity and hence memory capacity. Thus, for example, the more selective the neurons and the smaller the set of active neurons representing a sensory object, the more the number of sensory objects that can be represented uniquely and therefore discriminable.

Insects are no exception to this rule. They also use a sparse code for the representation of sensory objects. In locusts, and in the fruit fly *Drosophila*, the representation of an 'odour object' is broad at the sensory periphery, where odours are detected by peripheral sensory neurons tuned to many odours. At the higher memory centres of MBs, however, an ensemble of few neurons responds to a given odour, and a given neuron responds highly selectively to only a few odours.

Although responses by ensembles of highly selective neurons in the sensory cortex have been found for different senses (visual, olfactory and auditory), across many animals, it is not entirely clear how selectivity is generated or regulated in different behavioural contexts.

The brain of the larva of *Drosophila* has only 10,000 neurons at its largest stage. A single human brain, therefore, with around 100 billion neurons, has as many neurons as 10 million larval brains. Despite this difference in computational power, the larva is still able to discriminate between odours and perform Pavlovian associative learning. *Drosophila* has powerful genetic tools for visualising and manipulating the activity of single neurons, and therefore for mapping genes and circuits to behaviour. Furthermore, a larval brain connectome (a map of most neurons and their connections, a community project led by Albert Cardona, in Janelia Farm, USA) is now available, providing a road map of neurons in the brain that can be used to link the MB circuits to wider areas in the brain. The calyx (input region) of the MBs is a sensory input region similar to the sensory cortex. It possesses an architecture consistent with a role in integrating multiple odour features into a single perceptual odour object. My aim is to understand the functional circuit in the calyx and its wider connections within the brain that enable such an elementary brain to orchestrate behavioural odour discrimination.

The MBs, centres of memory in the insect brain

MBs were discovered in 1850 by Félix Dujardin, who called them ‘corps pédonculés’. He noticed a correlation between higher sociality and larger sizes of these centres by inspecting brains of ichneumons (wasps), solitary bees, and honey bees, and proposed that these were centres of intelligence that would mediate the coordination of behaviour. MBs are paired centres in each brain hemisphere of the insect brain, such as in honeybees, fruit flies, cockroaches, locusts, and crickets. Evolutionary analysis suggests, in fact, an ancestral neuroanatomical ground pattern across many animal phyla. MBs are composed of hundreds to several hundred thousand small neurons, named Kenyon cells (KCs), with a parallel fibre output through a stalk called the pedunculus that bifurcates into a vertical and horizontal branch, named the vertical and horizontal lobe respectively (Fig. 1).

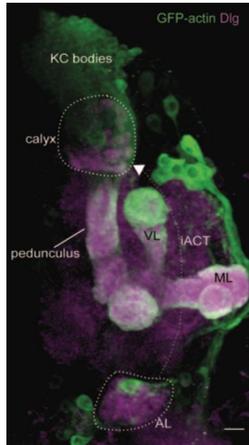


Fig. 1. A frontal view of the larval MB in the right brain hemisphere. Olfactory input is received in the first olfactory centre in the brain, the antennal lobe (AL), the equivalent of the olfactory bulb (OB) in mammals. From there the secondary olfactory neurons, projection neurons (PNs), carry this information to the MB calyx via the iACT nerve tract. VL: vertical lobe, ML: medial lobe. KCs are visualised by GFP (green fluorescent protein), the MBs and AL are labelled using antibodies to DLG, a protein rich in synapses. Scale bar is 10 μ m. From L M Masuda-Nakagawa et al., 'Stereotypic and random pattern of connectivity in the larval mushroom body calyx of *Drosophila*', *Proc. Natl. Acad. Sci. USA* 102 (2005): 19027–32.

In 1980, Martin Heisenberg first showed that in *Drosophila* deletions of the MBs impaired classical olfactory associative learning, or the ability to learn to avoid an odour (the conditioned stimulus), previously paired with an unconditioned stimulus (an electric shock).¹ In adult *Drosophila*, MBs consist of approximately 2,500 KCs per brain hemisphere, and they receive olfactory information in the calyx region, organised in around 1,000 small spherical structures named microglomeruli, each of which receives the input of a specific olfactory channel. These channels originate from about 50 olfactory receptors in the antennae of the fly. Different types of KC segregate into three main subsets, and each is involved in different phases of memory, such as memory stabilisation, consolidation, and retrieval. Lobes of the MBs are tiled by the arborizations of dopaminergic neurons that communicate

¹ Martin Heisenberg, 'Mutations of brain structure and function: What is the significance of the mushroom bodies for behaviour,' in O. Siddiqi, et al. (eds.), *Development and neurobiology of Drosophila* (New York: Plenum Press, 1980): 373-90.

context information such as hunger and satiety, or sleep, and these interact with KCs and MB output neurons (MBONs) that transmit in a precise spatial correspondence the learned output of the MBs to other brain centres. This organisation allows a given sensory object to be transformed into a perceptual representation with positive or negative valence that guides, respectively, approach or aversive behaviour.

Where is memory stored? ‘Memory engram’, or memory trace, was first defined by Richard Semon in 1904, as ‘the enduring though primarily latent modification in the irritable substance produced by a stimulus (from an experience)’. More than a century ago, Semon predicted our current understanding, as ‘the enduring physical or chemical changes that were elicited by learning and underlie the newly formed memory associations’. He also introduced the concept that memory traces reside in cells co-active at the time of learning ‘unified engram-complex’, as well as the concept of memory recall by a part of the stimulus experienced during learning, or what is known today as pattern completion.²

The molecular cascade of long-term storage of memory is universal and *Drosophila* has provided one of the best known models of associative learning at the molecular and cellular level. It involves the enzyme adenylyl cyclase (AC) that produces the second messenger cAMP and CREB (cAMP Responsive Element-Binding Protein). This activates the gene transcription that underlies long lasting changes in the physiology of connections of neurons in the learning circuit. Our current view suggests that the memory engram in the MBs resides in the output of the MBs, via changes in the physiology in KCs outputs and/or in the change in responsiveness of MBONs.

Genetic tools to visualise, monitor, or manipulate particular neurons with high specificity

In the genome of animals, genes, or the nucleotide sequences that are read by the cellular machinery to produce proteins, have regulatory portions (or ‘enhancers’) spread in nearby regions. These can dictate the

² Richard Semon, *Die Mneme als erhaltendes Prinzip im Wechsel des organischen Geschehens* (Leipzig: Wilhelm Engelmann, 1904).

expression of a given gene in a manner that is temporally and spatially specific, that is, at a defined stage of development and in a defined set of neurons. In *Drosophila*, ‘enhancer traps’ can monitor the activity of these enhancers by introducing random ‘tags’ in the genome. An example is the yeast *GAL4* that regulates the expression of other genes by binding to specific sequences engineered into them. It thus became possible to identify neurons by simple genetic crosses of specific *GAL4* flies to flies genetically engineered to express “reporters” such as Green Fluorescent Protein (GFP, originally from jellyfish, and which glows green on exposure to blue light). We might then combine this with optogenetics, the use of light-activated ion channels such as algal channelrhodopsin, in order to activate neurons in a second independent system such as bacterial *LexA*. This makes it possible to record neural activity in one set of defined neurons expressing a reporter of neural activity in response to activation of a different set of neurons expressing channelrhodopsin.

How are odour objects generated in the MBs for learning and recall?

Odours are detected by specific receptors in the larval nose. Each receptor is activated by one odour feature (a functional group like a short-chain aldehyde, for example) and each odour molecule will activate a combination of odour receptors, each detecting one feature of the molecule.

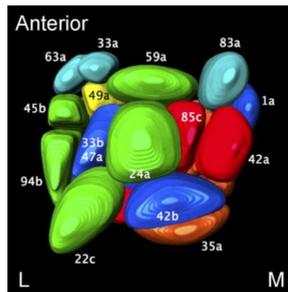


Fig. 2. Odour receptor map in the larval AL. Anterior view, one OSN expresses a single olfactory receptor and innervates a single AL glomerulus. Colour code indicates functional groups; green: aromatic, red: broad-range aliphatic, blue: esters, brown: alcohols, pale blue: no known odour responses, yellow: inhibitory responses. L: lateral, M: medial. Numbers correspond to olfactory receptors. From L. M. Masuda-Nakagawa et al., ‘Localized olfactory representation in mushroom bodies of *Drosophila* larvae. *Proc. Natl. Acad. Sci. USA* 106 (2009): 10314-19.

By generating an odour map of the larval AL (Fig. 2), and following single PN channels from AL to calyx anatomically, we found that 23 calyx glomeruli out of the 34 calyx glomeruli are olfactory glomeruli that receive input originating from a single olfactory sensory neuron (OSN). Each express a single olfactory receptor from a repertoire of 21 unique OSNs (Fig. 3). In a larva genetically engineered to have only one active olfactory receptor (for example, where only a receptor for ethyl acetate (EA) is active), a puff of EA activates only one or few calyx glomeruli. This is visualised by an increase in calcium detected by a reporter of neural activity expressed in KCs. The functional parallel pathways from single OSN to calyx generates a stereotypic odour receptor map in the MB calyx.

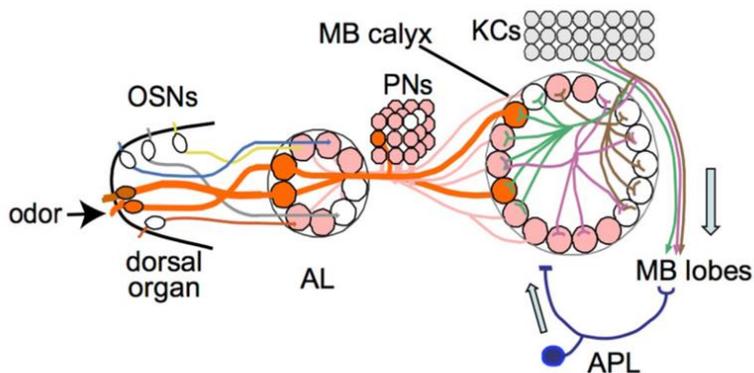


Fig. 3. Parallel input odour channels in the larval olfactory pathway. Single olfactory sensory neurons (OSNs) in the nose of the larva (dorsal organ), project to a single antennal lobe (AL) glomerulus. A single projection neuron (PN) projects to mostly a single calyx glomerulus. The inhibitory neuron APL receives output from the MBs and feeds back inhibition on the calyx input. KCs may integrate multiple odour channels. From L M Masuda-Nakagawa et al, 'A single GABAergic neuron mediates feedback of odor-evoked signals in the mushroom body of larval *Drosophila*. *Front Neural Circuits*' 8 (2014): 35.

How is the calyx odour map used by KCs? A single KC sends dendrites (processes that receive input) to about 6 calyx glomeruli (Fig. 4). They are apparently sent randomly, with no overlap in patterns of

innervation by sets of KCs, suggesting that each KC must integrate multiple input channels in a combinatorial and random manner. It is a strategy that increases the coding capacity of KCs to a large number of odours.

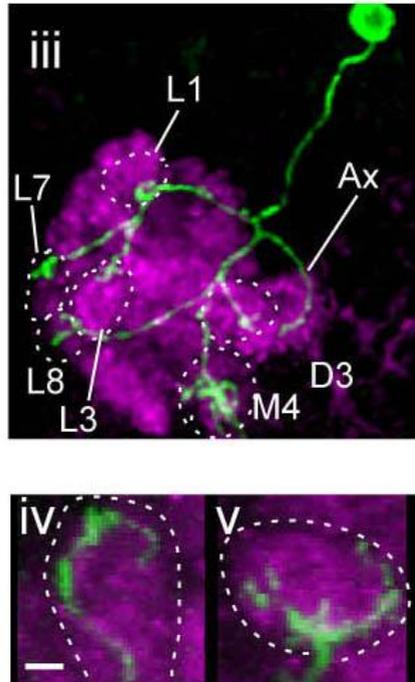


Fig. 4. Dorsal view of MB calyx shows morphology of a single KC. *iii*: a single larval KC innervates about 6 glomeruli (L1, L7, L8, L3, M4, D3). *Ax*: axon, output of KC. *iv*, *v*: a single KC dendrite encloses a single calyx glomerulus. Scale bar: 10 μ m. From L M Masuda-Nakagawa et al (2005).

How many KC input channels should become activated to make a KC fire? If a KC fires by activation of any one of its 6 dendritic termini, discrimination would be low given that many KCs would fire (each glomerulus is innervated by approximately 10 KCs). The system loses

discrimination ability because many KCs would fire to a given odour. If all 6 dendritic termini need to be activated, a KC would never fire because it would be too stringent, the system would lose sensitivity, and odours would not be detected. This anatomical organisation is consistent with the sparse coding and high selectivity of KCs. Electrophysiological analysis in flies showed that KCs respond sparsely to a given odour, confirming the predictions derived from the larval anatomical organisation. With flies, however, their complexity (1,000 calyx microglomeruli) and cellular redundancy (different classes of KCs), makes it difficult to achieve the cellular resolution achieved in larvae.

The representation of odour objects is not fixed only by the connections of input channels to Kenyon cells. For example, the representation of odours can be tightly regulated by a single inhibitory feedback neuron, the larval APL, that responds to the output of the MBs, and feeds back negatively on the calyx. The anatomical organisation that underlies the sparse code keeps KCs quiescent and allows them to respond transiently to a given odour. This mechanism is also found in the mammalian olfactory cortex.

How context influences the balance of sensitivity vs discrimination

It has been hypothesised that the behavioural state of an animal, including states of arousal, wakefulness, attention, hunger, and motor activity, can influence the processing of sensory input. It does so by filtering relevant sensory input and increasing the signal to noise and/or changing the gain of sensitivity to input. This is a strategy that facilitates the detection of behaviourally important changes in the environment. Neuromodulatory neurons, such as dopaminergic and noradrenergic neurons, are known to broadcast changes in behavioural states. Such a change is that between sleep and arousal, changing the physiological responses of brain networks.

The calyx receives modulatory input from 2 octopaminergic (OA) neurons, that originate in the SEZ (subesophageal zone), predominantly a region that receives taste input in the insect brain (Fig. 5). OA is the counterpart of vertebrate noradrenalin in its chemical structure, with shared receptors and some functional similarities. OA activity accompanies arousal, aggression, reward, and locomotion. OA neurons contact all other neurons in the calyx: KCs, PNs, APL, and the only output neurons of the calyx called Odd neurons. Therefore, OA neurons could

potentially influence the activity of all other neurons in the circuit, thus broadcasting instructing signals and potentially changing the balance between sensitivity and discrimination in the calyx.

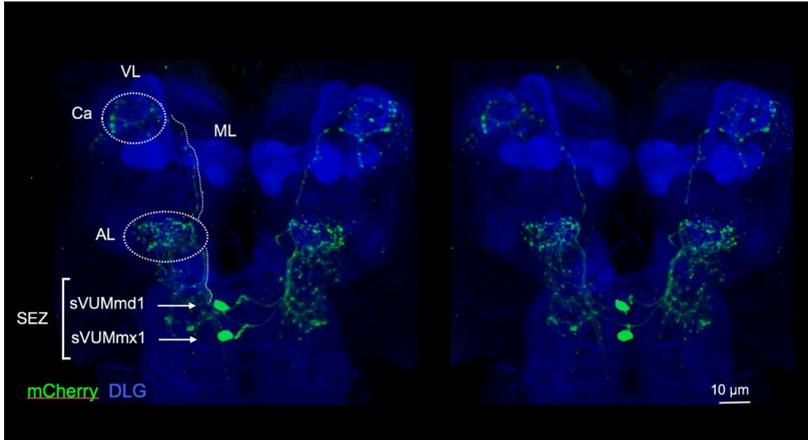


Fig. 5. Neuromodulatory input to the calyx. 3D view of the two octopaminergic neurons (green), named sVUMmd1, and sVUMmx1, originating in the SEZ (subesophageal zone), innervating the AL and calyx (Ca) of the MBs (blue). VL: vertical lobe of MBs, ML: medial lobe of MBs. After H J Y Wong et al, 'Octopaminergic neurons have multiple targets in *Drosophila* larval mushroom body calyx and can modulate behavioral odor discrimination', *Learn Mem.* 28 (2021): 53-71.

The behavioural role of the calyx OA modulatory neurons

If OA is released in the calyx in response to changes in behavioural states, one might expect the sensitivity of the calyx to odour input to be increased and the representation of odours broadened, a situation that would prioritise high sensitivity over fine discrimination. We designed an odour discrimination paradigm to distinguish discrimination ability from learning ability, by performing differential appetitive conditioning of larvae using a pair of similar odours (actually mixes with differing proportions of a pair of odours), and conditioning with fructose. OA neurons were activated by amber light that activates channelrhodopsin, a light-sensitive ion channel, in larvae genetically engineered to express it in calyx OA neurons during training or recall. These larvae lost the ability to learn to discriminate similar odours, but did not lose the ability

to learn to discriminate a pair of dissimilar odours. Thus OA can potentially modulate KC activity and change the balance between sensitivity and discrimination, depending on behavioural state changes.

Relevance to the mammalian brain

The selection of behaviour, such as whether to escape from a predator or approach food, is essential for the survival of animals including humans. Even insects with their simpler brains, must possess mechanisms to perform analysis of sensory cues and use them to predict behavioural outcomes, to decide whether to escape or approach.

The functional organisation of the calyx circuit is strikingly similar to the piriform cortex of mammals. This piriform cortex is the largest region of the olfactory cortex, a phylogenetically older paleocortex, which receives direct olfactory input from the olfactory bulb (OB). Its functional organization also makes it similar to the most ancient area of the brain: archicortex, or the hippocampal formation. The piriform cortex has a role in odour discrimination and memory. It shares the same principles of odour representation as in insect MBs. A unique ensemble of piriform cortex neurons is activated by a given odour, and individual piriform cortex cells integrate multiple odour input channels, receiving input from a random collection of OB glomeruli.

The basic circuit architecture of the mammalian piriform cortex is similar to the *Drosophila* MB calyx. Piriform cortex neurons receive inputs from mitral cells, the second order neurons carrying olfactory input from the OB, with inhibitory feedback neurons activated by piriform cortex neurons. In so regulating piriform cortex neuron excitability, their responses to odours is sharpened. A similar mechanism of feedback inhibition via the APL neuron in MB calyx sharpens responses of MB neurons. Furthermore, the piriform cortex is innervated by neuromodulators including noradrenalin, implicating the modulation of sensory processing by higher centres in the brain - similar to OA modulation of the MB calyx.

The piriform cortex has parallel outputs to the amygdala, hippocampus, prefrontal cortex, and orbitofrontal cortex. Notably the piriform cortex odour identity inputs to orbitofrontal cortex might be reinforced during olfactory learning. Learning induced by different reinforcers in the MBs are also distributed in parallel processing along

compartments at the output region of MBs. MBONs represent the learned association.

The remarkable similarity in the architecture of piriform cortex to the calyx of MBs, and the organization of their circuits, hints at a ground plan of odour processing for memory that can be achieved by a limited number of neurons. The few hundred MB neurons in larvae compare to more than half a million piriform cortex neurons in the mammalian brain. The greater number of neurons in the piriform cortex could allow more subtle discrimination of odours, scents, and their nuances – and more sophisticated output circuits, even though all are built on the same basic principle.

Future directions

One of the main challenges in neuroscience is to understand how the brain orchestrates behaviour, a dynamic process that translates the sensory world into a code to be remembered, and later used, to adapt behaviour to need.

The minibrain of the *Drosophila* maggot, with numerical simplicity and the availability of a complete brain connectome, provides a roadmap of neurons from sensory input to behavioural output, in a minuscule brain that appears to have found fundamentally similar solutions to the same challenges as in mammals including ourselves. The straightforward and powerful genetics of *Drosophila* offer us new and exciting paths by which to travel the brain roadmap and to understand the neural architecture that drives action in animals and humans. Above all – and what grounds our optimism about future research – is that the calyx of the mushroom bodies provides a simple model with a minimal number of neuron types to unravel how memory is both formed and used to guide our behaviour.

L Masuda-Nakagawa

THE SCHOOL OF NIGHT:

COURTIERS, POETS, AND SCIENTISTS IN THE AGE OF SHAKESPEARE

In *Love's Labour's Lost* (c 1595), Shakespeare portrayed a king and three of his lords attempting to eschew the world of love. At the beginning of the play, this noble bunch declare their absolute commitment to three full years of learning and fasting. No woman, they decree, will come within a mile of the Court. Anyone aware that this play is a comedy will surmise quite rightly that such an ambitious project turns out to be far easier in the planning than in the execution. By the end of the second Act—barely twenty minutes of stage time since the four men have made their austere vows—all are hopelessly besotted with a French princess and her ladies-in-waiting, who have been camping exactly one mile outside of the Court. The rest of the play depicts the speedy unravelling of the men's ascetic oath, the extravagant courting of the women, and the eventual agreement (upon the princess hearing news of her father's death) that marriages can take place only if the men can wait exactly one year and one day. It is a simple and endearing plot that provided the vehicle for one of Shakespeare's most linguistically virtuosic plays, full of ingenious wit and dazzling poetry.

One line from the play is particularly infamous. Upon hearing Berowne (one of the king's lords) rhapsodise about his black-haired love-interest, King Ferdinand responds:

O paradox! Black is the badge of hell,
The hue of dungeons, and the school of night;
And beauty's crest becomes the heavens well.

The general thrust of Ferdinand's words is clear enough: how curious it is that the colour black can be associated with such terrible things as hell and dungeons, as well as such magnificent beauty. And yet, that little phrase '*the school of night*' has provoked an astonishing amount of scholarly commentary, conjecture, and disagreement. An entire theory about how the play works and what it means has been built upon it, and subsequently destroyed. Let me briefly run you through it.

In the early decades of the twentieth century, when English Literature was nascent as a university subject, the most influential editors of *Love's Labour's Lost* told their readers that Ferdinand's phrase was actually a covert allusion to a group of real Elizabethan men who devoted their time to all sorts of dubious, esoteric learning. In the introduction to their 1923 New Cambridge Shakespeare edition, John Dover Wilson and Arthur Quiller-Couch wrote that 'the secret of the play' was to be found in its 'topical riddles'. They claimed that 'a School of Night really existed' and that Shakespeare's mention of it was the key to understanding that the plot of *Love's Labour's Lost* was really 'Shakespeare's satire upon it'. This real School of Night was supposedly made up of a group of individuals centred around Sir Walter Raleigh, and included the mathematician Thomas Harriot, the poets Christopher Marlowe and George Chapman, and the 'Wizard Earl' of Northumberland, Henry Percy. Dover Wilson and Quiller-Couch had found the nucleus of their theory in a 1903 book by Arthur Acheson, and had greatly elaborated upon it. Despite not having any significant corroborating evidence, they made the theory take hold among the play's readers, performers and even scholars. In 1936, a young Muriel Bradbrook (who would go on to be Professor of English at Cambridge and the Mistress of Girton College) devoted an entire monograph to supporting the theory, helping to cement it into the canon of both scholarly and popular knowledge about *Love's Labour's Lost*.

It was only much later in the twentieth century that scholars and editors began to consider themselves duped. By 1982, John Kerrigan (the current Professor of English 2000 at Cambridge) was able to write in his own Penguin edition of *Love's Labour's Lost* that the School of Night theory 'has recently fallen into disrepute'. 'Historians', he continues, 'have shown that Raleigh had no clearly defined coterie, and literary critics (observing, no doubt, that the number of candidates for each comic role had multiplied to the point of absurdity) have pointed out that characterisation in *Love's Labour's Lost* is more general than specific'. Other modern editors have quashed the theory more extremely by arguing that Shakespeare never even wrote the words '*school of night*'. Much earlier editors, these modern editors claim, had probably misread Shakespeare's manuscript, and the line should have read '*suit of night*', or '*style of night*', or something like that which made more obvious semantic sense. And so, in the course of a century, a commonplace of

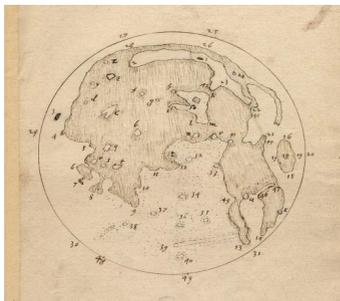
Shakespearean knowledge was tossed aside as a ludicrous unsubstantiated fiction.

But, of course, there are really two quite distinct questions being navigated by all of this confusion: first, 'is Shakespeare alluding to a real School of Night?'; and second, 'did a real School of Night actually exist?'. If the answer to the second question is 'no' then obviously the answer to the first must also be 'no'. But the answer to the first question being 'no' does not necessitate the answer to the second being 'no'. Indeed, my current research is interested precisely in those courtiers, scientists, and poets who those discredited editors and scholars of the 1920s and 1930s considered part of the School of Night. These figures may not have represented a 'school' in the sense of a formalised institution, but they were certainly socially networked, some with very close bonds and some with looser ones. Most of them (albeit to different degrees) courted controversy with shared interests in new kinds of knowledge and thinking that had the potential to disrupt fundamental assumptions of orthodox religion, philosophy, science, and society. Raleigh's colonial voyages, Marlowe's stage plays, Chapman's poems, and Harriot's ground-breaking mathematics are all curiously part of a collective lust for new places, new ideas, and new aesthetics. Harriot would only wear the dark black suits of a scholar, and all of these men were notorious for smoking the tobacco brought back from America. The School of Night may not have existed in any strict sense, but perhaps one might come to see why the intuitions of Dover-Wilson, Quiller-Couch, Bradbrook, *et al*, were justified in attaching this pithy phrase to the spirit of this group of fascinating individuals.

When I first came to Magdalene almost three years ago, I was primarily interested in Harriot. I was just finishing my first book, on the relationship between mathematics and drama in Elizabethan England, and Harriot had revealed himself to me as clearly the most advanced British mathematician of that age. Luckily for us, he left behind thousands of manuscript pages in his own (barely legible!) handwriting, now safely housed at the British Library. They showcase the entire range of his scientific skill, and provide evidence of his pioneering, often controversial discoveries in fields such as algebra, optics, mechanics, navigation, astronomy (he was probably the world's first telescopic astronomer), and what would later become calculus. There has long been a small but dedicated group of historians who have done brilliant

research on Harriot. A recent and much welcome biography by the Australian scholar Robyn Arianrhod is at long last helping to elevate his achievements, but it still seems a great travesty that Harriot's name is not yet as famous as Galileo's, Kepler's, or Brahe's.

The extent of Harriot's scientific prowess is astonishing, but his life is of interest for reasons even beyond it. Dedicated in large part to the quiet pursuit of learning, Harriot also



A map of the moon from Thomas Harriot's MS papers (British Library)

enjoyed episodes of real adventure, thanks to his close relationship with Raleigh, who acted as his first employer and patron. It is not absolutely clear when the two met, but it must have been very shortly after Harriot had finished his undergraduate studies at St Mary Hall, Oxford (now part of Oriel College), where he had matriculated in 1577. By the early 1580s, Raleigh had installed Harriot in rooms

adjoining his own study in Durham House. Located in the Strand in London, overlooking the River Thames, the house had been granted to Raleigh by Queen Elizabeth I in 1583, and Harriot's role there seems to have been that of a kind of live-in applied mathematician. He spent his time on navigational theory, and writing lectures on instruments and measurements that he delivered to Raleigh's sea captains in preparations for their next voyage to North America. When the time came to set sail in 1585, the ever-impetuous Elizabeth decided that Raleigh, her favourite courtier at the time, should stay right by her side. So, as Harriot's employer played lapdog to the queen, Harriot himself embarked upon the journey of a lifetime.

After months of treacherous sailing, the fleet of seven ships reached the east coast of North America, where the one hundred or so English travellers made camp on Roanoke Island, in modern day North Carolina. They lived there for about a year, conducting expeditions, mapping the terrain, and communicating with the area's indigenous tribe and its leader, King Wingina. Quite astonishingly, Harriot seems to have been the only man able to communicate with the indigenous people in their native language, Algonquian, having devised a phonetic alphabet

that enabled him to translate the sounds of Algonquian into English and vice versa. This was all part of his role not simply as a mathematician and technologist, but also as a geographer and ethnographer. Harriot devoted much of his time in America to recording the land's resources, to observing the customs of its peoples, and to understanding the relationship between the two. His brief account of all of this was published in London in 1588, illustrated by John White, the voyage's on-board artist. It evidences a genuine degree of empathy and respect on Harriot's part towards his subjects, but is nevertheless reflective of the generally detached and opportunistic mindset typical of colonists of his time. Unfortunately, but perhaps inevitably, relations between King Wingina's people and the English travellers had disintegrated violently by June 1586, and the latter, including Harriot, were forced to flee back to England.



A drawing of a 'Virginian Woman' by John White, in Thomas Harriot's Brief and True Report (1588)

When Harriot arrived back in London, the city was about to witness the birth of the golden age of English theatre. Its main pioneer, Christopher Marlowe, was perhaps acquainted with both Harriot and Raleigh. Baptised in the same year as Shakespeare (1564), Marlowe studied at Corpus Christi College, Cambridge. Despite not being in attendance for most of his MA year, he was awarded the higher degree on intervention of the queen herself, leading to speculation that Marlowe had been acting as a government spy. He only wrote seven plays in his short lifetime, but they shaped the entire course of drama in the age of Shakespeare.



*A portrait in
Corpus Christi College
long thought to be Marlowe*

Famous for their mighty lines of innovative blank verse, and their bold depictions of rebellious figures undone by their own over-reaching ambitions, Marlowe's plays come second, in terms of their aesthetic achievements, only to Shakespeare's very best works. In the year after Harriot returned to London, he could have seen for himself the Elizabethan theatre's first real smash hit: Marlowe's two-part tragedy *Tamburlaine the Great* (1587). In the course of the two plays, Marlowe depicted the rise of Tamburlaine (loosely based on the fourteenth-century Central Asian emperor Timur the Lame) from Scythian shepherd to omnipotent warlord, fighting relentlessly with massive foreign armies to conquer entire continents. As Tamburlaine's dominion grows, so does his hubris: he burns the holy text and declares himself greater than God. But before he can make the whole world his own, he becomes perilously ill. On his deathbed he asks for a map, and, in meticulous detail, walks his sons through the epic journey his life has taken:

Here I began to march towards Persia,
Along Armenia and the Caspian Sea,
And thence unto Bithynia, where I took
The Turk and his great empress prisoners.

Then march'd I into Egypt and Arabia;
And here, not far from Alexandria,
Whereas the Terrene and the Red Sea meet,
Being distant less than full a hundred leagues,
I meant to cut a channel to them both,
That men might quickly sail to India.
From thence to Nubia near Borno-lake,
And so along the Aethiopian sea,
Cutting the tropic line of Capricorn,
I conquer'd all as far as Zanzibar.
Then, by the northern part of Africa,
I came at last to Graecia, and from thence
To Asia, where I stay against my will;
Which is from Scythia, where I first began,
Backward[s] and forwards near five thousand leagues.

All that is left for Tamburlaine to do is to show his sons the area of ground he has left unconquered, and to urge them to finish his project of global domination.

It is difficult for us to imagine how wonderfully strange the lines quoted above must have sounded to an early modern audience largely unfamiliar with places outside of their immediate locale. Maps did of course exist in this period, but only a tiny proportion of playgoers would have seen maps of the exotic places featured in Tamburlaine's list of conquests. Marlowe most probably went to tremendous effort to seek out the relevant information, and to get the broad thrust of the geography correct. What might have provided his sources? Well, two people who almost certainly had seen the kind of map Tamburlaine is supposed to be pointing at were Harriot and Raleigh, who kept a large collection of maps at Durham House. Indeed, if the two men *did* venture to see Marlowe's play, they must have been struck by how closely the spirit of Tamburlaine's ambitions in the East resonated with Raleigh's in the West. Is it possible that Raleigh had offered a kind of model for Marlowe's Tamburlaine? Might Raleigh's maps have even been the source of Marlowe's geographical knowledge? In answering these questions, we are in the realm of conjecture as much as we are of evidence, but there *are* some tantalising indications that the three men may well have been acquainted with one another.

In the first half of the 1590s, there were growing accusations of heresy made against Raleigh, Harriot, and Marlowe. They seem to have been catalysed by a pseudonymous tract published in 1592 claiming that certain members of the Court were atheists and that Raleigh was maintaining a 'school of atheism'. The chaotic allegations and investigations which followed are difficult for historians to piece together accurately, but archival manuscript documents show that when Marlowe was called to appear in front of the Privy Council on suspicion of atheism, the allegations made against him also implicated Raleigh, to whom Marlowe was supposed to have read some kind of atheist lecture. When Marlowe's room-mate Thomas Kyd (another pioneer of early modern drama) was arrested for owning a tract claiming Jesus was not divine, he told the authorities that the tract belonged to Marlowe, and that they should seek out Harriot for verification of his own innocence. By this time, Marlowe was dead. He had been murdered in a tavern under potentially suspicious circumstances whilst waiting to appear in front of the Council. Why he was murdered we cannot be sure: perhaps his death was linked to the allegations; perhaps it was owing to his work as a spy; or perhaps it was a simple consequence of a hot-headed brawl. Regardless, the possibility that he had socialised with Raleigh and Harriot while he was still alive is very real. Indeed, if Tamburlaine is somewhat reminiscent of Raleigh, so does his other most famous protagonist resemble Harriot. In his penultimate play, *Doctor Faustus* (c 1589), Marlowe portrayed a scholar who, having exhausted the worldly possibilities of logic, physic, law, and divinity, turns to the 'metaphysics of magicians, / And necromantic books'. In exchange for knowledge and power above his station, Faustus sells his soul to the Devil, and damns himself to an afterlife of eternal hell. In an age where the boundary between technology and sorcery was so unclear, the anxieties surrounding a figure like Faustus mirrored the suspicious perceptions people had of advanced scientists like Harriot.

Among the tribulations of the 1590s, Harriot maintained a degree of loyalty to Raleigh, but evidently began to distance himself from him. His primary allegiance shifted to a man whom Raleigh had most probably introduced him to, the 'Wizard Earl' of Northumberland, Henry Percy. One of Elizabeth I's wealthiest courtiers, he owned huge amounts of land in the north of England (his ancestors still live in Alnwick Castle to this day), but also Petworth House in Sussex and Syon

House in Isleworth, on the opposite side of the River Thames to Kew. Nicholas Hilliard, perhaps the most revered English artist of the period, painted him in one of his famous miniatures, adopting the fashionable melancholic pose of the Elizabethan gentleman, reclining in a garden. Percy's sobriquet was the result of his lifelong enthusiasm for and patronage of vanguard scientists and scientific experimentation. He kept a multitude of scientists around him, whom he funded and facilitated in their pursuits. He was especially generous to Harriot. By 1597, he had given him a house in the grounds of Syon House. A year later, he granted him a substantial pension which he was to receive for the rest of his life. Such newfound financial security enabled Harriot to immerse himself in his learning and research: it is no coincidence that his most important work on ballistics, optics, and astronomical phenomena was produced during this period.



Nicholas Hilliard's miniature of Henry Percy

Raleigh's fortunes, meanwhile, continued to decline. When James I came to the throne in 1603, Raleigh was identified as a significant threat to political stability, and accused of treason. The subsequent trial that took place in the Great Hall of Winchester Castle was a spectacular

miscarriage of justice, in which the prosecuting Attorney-General Edward Coke crushed Raleigh's defence, not with evidence but with rhetorical dexterity and legal technicalities. Raleigh was thrown in the Tower of London. Initially sentenced to death, the king pardoned him on the scaffold, and allowed him to return to the Tower, where he would spend the next fifteen years. In 1605, Percy joined him there. Caught up in the immediate aftermath of the Gunpowder Plot, he too was accused of treason, primarily because his distant cousin Thomas Percy was one of the conspirators. He was stripped of all government offices, fined the largest sum ever imposed on an Englishman, and was to stay in the Tower for seventeen years. It must have been a surreal experience for Harriot to visit both of his former patrons in the same prison, but it is fascinating to consider how even in the austere surroundings of the Tower there would have been the possibility of intellectual collaboration. Both Raleigh and Percy lived in relative comfort in the Tower, permitted to keep books and writing implements in their cells. Not one to let indefinite confinement diminish his rapacious ambition, Raleigh even began work on a chronicle history of the entire world. Despite only getting as far as 146 BC, it is a remarkable literary work, and undoubtedly Raleigh's *magnum opus*. With Percy nearby, and visits from Harriot and others, it seems impossible to think that Raleigh and all of these men did not continue to do what they had always done: think subversive thoughts, court controversial ideas, and communicate with those who were likeminded.

J Jarrett

MAGDALENE COLLEGE FLORA

During 2018–19 I visited the College roughly once a month to conduct a survey of the ‘wild’ plants in the College grounds. This was partly for a survey project called NatHistCam run by the Cambridge Natural History Society, partly for the Botanical Society of Britain & Ireland’s Atlas 2020 project, and partly as a longer-term study of College grounds. The NatHistCam project aimed to produce a snapshot of the wildlife of the city in a rough square bounded to the north by the A14 and to the west by the M11, with fieldwork taking place up to the end of 2019. A book describing the results of the survey is planned for publication this year.

The Atlas 2020 project also had fieldwork concluding at the end of 2019, and aimed to document the changing flora of Britain and Ireland. Preliminary findings for the county¹ have shown that many more species are in trouble than had been evident from the national Red List.² It is also clear that some species are expanding their range, with salt loving species in particular now nearly ubiquitous along most major and some minor routes. Other species expanding their range include plants such as narrow-leaved ragwort *Senecio inaequidens*, an alien from South Africa, which has been spreading rapidly over the last decade. A native spreader is bee orchid *Ophrys apifera*, which also seems to be responding to climate change.

There are plants in several habitats that are doing less well – those of woodland margins, aquatic habitats, and chalk grassland in particular. There were some surprising additions to the county list of threatened species in these habitats. Some still relatively common species were added because the records show that they used to be even more widespread. Examples include Goldilocks buttercup *Ranunculus auricomus* from woodland margins, water forget-me-not *Myosotis scorpioides* from ditch and pond banks, and wild thyme *Thymus drucei* from chalk grassland.

My survey showed that the College grounds support over 230 species of vascular plants (plant with tissues for conducting water and

¹ Jonathan Shanklin, ‘Vascular plants in decline in Cambridgeshire (v.c.29)’, *Nature in Cambridgeshire* 61 (2019): 28-32.

² P A Stroh et al., *A Vascular Plant Red List for England* (BSBI, 2014); www.bsbi.org/england (accessed Jan 2020).

minerals throughout the plant) as well as several species of liverwort and ladybird. Forty-three of the plant species were axiophytes, which are plants that are of particular interest to botanists, conservationists and ecologists. The word comes from the Greek, meaning 'worthy plant', and they are species that are indicative of good or interesting habitats and are neither common nor rare. Several species are on the Register of Plants of Conservation Concern (RPCC)³ in the county and the majority of these were either associated with the shady areas of the Fellows' Garden or the riverside. In the spring, under the trees by the river was the best display of Goldilocks buttercup that I have seen. Also growing there is Ransoms *Allium ursinum*, a plant common in the west of England, but of restricted distribution in Cambridgeshire. At the edge of the lawn I was delighted to spot the rosette leaves of common spotted-orchid *Dactylorhiza fuchsii*. A little later in the year, the Head Gardener showed me another orchid that had come up at the edge of the area then fenced off for the construction of the New Library. This was a different species: pyramidal orchid *Anacamptis pyramidalis*, which is also expanding its range. Rather to my surprise. I failed to find any rosettes of bee orchid in the lawns although it is present in many other Cambridge lawns.



Pyramidal Orchid (Photo: Jonathan Shanklin)

³ Jonathan Shanklin, 'Register of Plants of Conservation Concern in Cambridgeshire' <https://legacy.bas.ac.uk/met/jds/cnhs/vc29%20RPCC.pdf> (accessed Jan 2020).

Given that the College has such extensive banks along the River Cam, it is not surprising that these should support some aquatic species and several are in the RPCC. There is the water forget-me-not, already mentioned, and some skullcap *Scutellaria galericulata* grows along the water-line. This is a most attractive plant with deep blue flowers in the summer. The brickwork of the banks also held a couple of interesting species. By St John's punt pool grew a maidenhair spleenwort *Asplenium trichomanes* and opposite QuaySide, a self-sown tobacco plant *Nicotiana sylvestris*. The former is in the RPCC because it is declining across the county, perhaps because we now prefer 'tidy' walls, while the tobacco plant is an uncommon alien species that only occasionally manages to escape from cultivation.

Particularly intriguing in the Fellows' Garden was the area fenced off for the New Library building works. Here a patch of disturbed ground allowed several species to come up and flower. Most notable was broad-leaved spurge *Euphorbia platyphyllos*, which is in the RPCC. It is still relatively common in west Cambridgeshire, but it is generally in decline nationally, though it seems to be spreading a little to the east. Here, it must have been in the seed bank for decades waiting for the chance to sprout. Another RPCC plant in this part of the Fellows' Garden was wild strawberry *Fragaria vesca*, although this one might have originated from a College garden party!

Not all plants that qualify for the RPCC or as axiophytes are necessarily desirable to have in college gardens. Knotted hedge-parsley *Torilis nodosa* is listed as in decline nationally, but it is increasing in Cambridgeshire. It loves mown grassland and can quickly spread through lawns and verges, helped by the blades of the mowers. One plant was spotted in the College lawns, but nominated for immediate removal. Other plants such as alexanders *Smyrniolum olusatrum* and hemp agrimony *Eupatorium cannabinum* behave as weeds and are weeded out by the garden staff.

Sometimes, plants can be so obvious that they are overlooked. A case in point was the large and venerable black poplar *Populus nigra* subsp. *betulifolia* in the Fellows' Garden. Although featured in an article in the *College Magazine* (2007–08), it took me until September to notice this tree, perhaps as a consequence of botanists spending most of their time looking down rather than looking up. Other botanists have failed to spot it as well, and it is not listed in the survey of Cambridgeshire black

poplars.⁴ Although it does not qualify to be on the RPCC, there are concerns, as the younger trees seen today are mostly planted and the species is not regenerating much from seed.

Overall, the College grounds seem little changed from when I was an undergraduate, although in those days I had only a passing interest in plants. The quince at the corner of Benson Hall has gone, but the crocus still come up in Benson Court in spring. There is clearly more emphasis on biodiversity in the College today and that is something that must be treasured, both locally and across the planet, for the benefit of future generations.

Jonathan Shanklin (1973)

(Botanical Society of Britain & Ireland Recorder for Cambridgeshire)

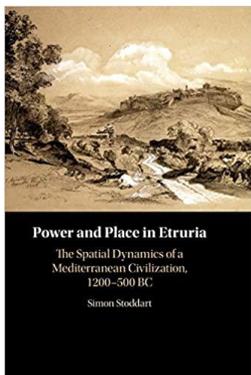


Tobacco plant

⁴ *Black Poplars (Populus nigra betulifolia) in Cambridgeshire* (Cambridgeshire & Peterborough Biological Records Centre, 2006).

BOOK REVIEWS

SIMON STODDART, *Power and Place in Etruria: The Spatial Dynamics of a Mediterranean Civilization, 1200–500 BC* (Cambridge University Press, 2020, 350 pp)



It is the tragedy of the Etruscans that they are almost too interesting, too unusual, and too exotic to have been studied at the same level and in the same ways as other major civilisations of the Mediterranean. Their unique artistic styles are quite unlike anything seen elsewhere, and unlike Greece, Rome, Israel, or Egypt they have not left us with any long texts to help us sense their literary culture. It is not that they were illiterate – far from it – and in fact they have left us thousands of inscriptions to pore over. But like recipients of Cassandra’s prophecies we are sadly doomed never to understand these texts because, while their Greek-derived alphabet is perfectly readable, their language has no known well-attested relatives and remains largely mysterious. Simon Stoddart’s ground-breaking new book is a departure from these old problems grounded in studies of Etruscan art and culture and brings a fresh perspective derived from the landscape the Etruscans inhabited and the way they shaped and used it.

Stoddart takes us on a journey from the traditional views that have dominated research, through the problems of the current state of evidence, to new ways of interpreting and extrapolating from data derived from archaeological surveys. As he points out in the first chapter, ‘some of the challenges of Etruria... are implicit in the evidence, and some are self-inflicted by the methodologies applied to that evidence’. There has been a certain division in scholarship between those studying different periods with different agendas, from the prehistoric and protohistoric to the broadly classical; the later period (mid-first millennium BC), under the study of scholars branded as ‘Etruscologists’, particularly bears the burden of the kinds of approaches usually and more appropriately applied to Greek and Roman civilisations. The present work breaks free of such constraints by taking the long view,

tracking the development of Etruscan settlement between c.1200 and c.500 BC and using this as a basis for trying to understand changing power structures in the *longue durée*. The advantages of this approach are clear from the beginning as a nuanced view of Etruscan state formation and long-term political and social change emerges, highlighting a tension between power derived from place, and power derived from familial descent.

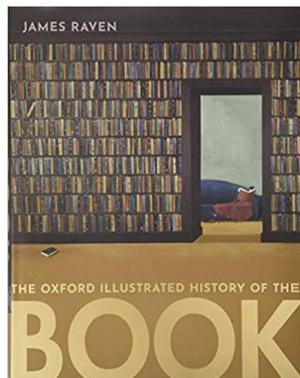
Spatial analysis of Etruscan settlement and culture is inevitably an interdisciplinary venture, one that incorporates perspectives from anthropology, human geography and archaeology. Chapter 2 presents a lengthy discussion of theoretical approaches to the interpretation of the survey data relating to the hierarchy and extent of settlements, enabling measurement of their size and relative importance. There follows a fascinating and detailed outline of the natural geography and resources that were at the disposal of the region's population in chapter 3. This forms the theoretical back-drop for the ensuing two-chapter evaluation of Etruscan settlement hierarchies and investigation into the ways humans manipulated their physical environment to create a political landscape, from the tenth and ninth centuries BC onwards, that was to dominate all subsequent social developments in the area.

One of the strengths of this volume lies in its careful quantitative analysis of the spatial distribution of settlement activity, giving it a significant advantage over studies that give only a more impressionistic view of the distribution of Etruscan culture. Thus it provides a solid basis for understanding the emergence and development of Etruscan 'states' (a term chosen to be deliberately neutral), as is amply demonstrated in chapter 6 where five major settlement regions are contrasted with each other (South Etruria, the Albegna Valley, Maremma, Chiusi and Perugia & Gubbio). The considerable wider value of this new study is perhaps most obvious in chapter 7, which redresses the long-standing reluctance in Etruscan research to bring archaeological and cultural studies into conversation with each other. Here the patterns already long identified in regional artistic styles and other areas of material culture are shown to have a direct relationship with the networks of power and control revealed through the present study of the Etruscan landscape. The concluding chapter highlights the potential to build on these insights in future research, and to take the relevance of landscape studies in new directions.

Over thirty years since he first conceived the idea for this rich volume, Stoddart has created an impressive, innovative study that capitalises on its central tenet ‘that landscape provides the vital context in which lives and material culture are created’. This work will have a major impact on the study of ancient Etruria, but there is also a great deal that scholars of other areas of the ancient world will learn from the methods pursued here. Stoddart unapologetically approaches his material with the ‘outlook of a prehistorian’, and by doing so shows us the huge value of applying quantitative study of archaeological data (sadly a rather alien concept to some scholars of the ancient Mediterranean) to what we already think we know about early civilisations.

P M Steele

JAMES RAVEN (ed), *The Oxford Illustrated History of the Book* (Oxford University Press, 2020, xxxvi + 431 pp)



The study of the book as a material and cultural object is an ever-growing, ever-changing area of research. As well as the growth of interdisciplinary academic research shedding new light on the production of books in the past, many fast-paced technological developments have prompted new explorations into what a book is and what it can be. In this new *Illustrated History of the Book*, one can see the benefits of such research and exploration as James Raven and his contributors guide us

through some five thousand years of history contained in this attractive volume of essays.

Each of the fourteen essays are self-contained, yet form a cohesive and enjoyable whole because of the recurring themes throughout: how technological, societal and geographic influences have shaped the book throughout history, and wider philosophical thoughts addressing whether our concept of a book should be defined by its material form.

The contributors exploring ancient civilizations perhaps have the most difficult job in tackling these questions, as they enliven our understanding of societies using clay tablets, animal shells, stelae, and bones to convey information. Eleanor Robson takes us back to a world predating the written word, where information was transmitted by sculpting, incising or manipulating readily available materials dependent on geographic location. She cites the knotted-string records of the Andes: the *kipu*, which consisted of a series of strings with pendant cords where the colours and knots carried formal meanings. The *kipu*, it is argued, recorded and disseminated information in an easily transported and replicated format, and therefore should not be excluded when exploring the history of the book.

Previous book histories have often focused on a particular geographic area, and in past scholarship, the history of the book has often been used as a shorthand to refer to the origins of manuscript and printed book production in Europe. It is welcome, therefore, to see a broader geographical approach taken in this particular work, and is highly innovative in this regard, expanding upon topics covered in Raven's recent publication, *What is the History of the Book?* (Polity Press, 2018). We note in Professor Cynthia Brokaw's essay that China entered its first printing boom under the Song Dynasty, 960–1279 CE, illustrated by a page of the Confucian Classic *Spring and Autumn Annals* printed in 1191, which could easily be mistaken for a page printed in the 20th century. It is pleasing for the reader to view these past examples of the book and its production which still look familiar to us today, perhaps inviting us to continue these longstanding traditions. David Rundle, in his chapter on Medieval Western Europe, informs us that the familiar rectangular shape of the modern book derives from the economical use of animal hides to make parchment.

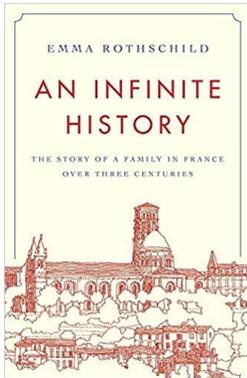
A present day concern is the interplay between the printed book, a format relatively unchanged over centuries, and the plethora of alternative digital formats now on offer owing to the rapid pace of technological change in the 21st century. The issues raised in the volume's essays on the Enlightenment, industrialization, and globalization foreshadow our present day concerns with 'information overload', copyright, and publishing models that are brought to the fore with the widespread use of ebooks, ejournals, and other digital resources. As the building of the New Library at Magdalene attests, the printed

book is not an outdated resource, and the longevity of its codex format is due to an ease of use which is difficult to improve upon. As Jeffrey Schnapp observes in his essay 'Books Transformed', the Kindle has sought to emulate the ease of reading a printed book through long battery life and screen attributes which do not strain the eye. As ebook sales level off, a hybrid model of information consumption may well have some longevity, where academic and leisure readers choose between traditional and digital resources depending on which best suits them in a variety of situations and environments.

It is evident that the history of the book is intertwined with the histories of reading, of communication and the organization and the dissemination of knowledge: indeed, how the book has shaped history itself. Although it would be impossible to cover every angle, this volume is successful in striking a balance between these related concerns, tied together by James Raven's valuable introduction to the work. He prepares the reader for navigating such a wide scope of research skilfully, and through his editorship has distilled the accomplished writings of his contributors into an important work on the topic in hand.

Catherine Sutherland
Deputy Librarian (Pepys Library and Special Collections)

EMMA ROTHSCHILD, *An Infinite History: The Story of a Family in France over Three Centuries* (Princeton University Press, 2021, 408 pp)



Emma Rothschild's point of departure for her new book on modern times in France is rather unexpected. *An Infinite History* begins with the story of an illiterate and probing woman, Marie Aymard, who lived in a place of 'most fatal immobility,' as Honoré de Balzac described her hometown of Angoulême. Aymard cannot claim a place in the pantheon of modern French history. She was neither among the élite nor a proletarian who rose to fame during the Revolution. In fact, Aymard is the kind of figure who poses significant problems for the

historian. She left almost no trace in the historical record, no writings of her own that would open a window on her ideas and experiences. Yet through formidable archival research Emma Rothschild has managed to reconstruct the world of Aymard, as well as that of her kith and kin and their wider milieu. The result is an alternative view on the political and economic transformations of France in the long nineteenth century.

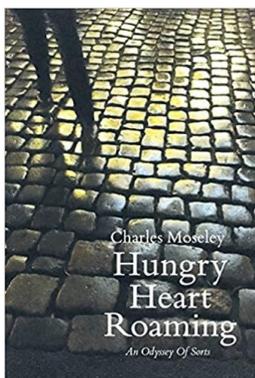
Like Rothschild's important previous book, *The Inner Life of Empire* (Princeton, 2011), *An Infinite History* is a prosopography of a family, and through it, a reconstruction of a network of connections, capital, and information. Rothschild's previous work explored the intersections between family and opportunity in the age of world-wide empire. Empire and the extra-European world are also present in *An Infinite History*, but they are not the principal back-drops against which this book investigates family life. Instead, this is a history from below of France's transition to modernity. The family's starting-point was not particularly promising. Angoulême, a small town in the south-west of France, was viewed in the period as an embodiment of provincialism, an economic backwater, and as largely unaffected by the Revolution. Nevertheless, Rothschild shows how everyday life in Angoulême was deeply impacted by the Revolution in terms of property ownership, prices, and professional opportunities. It was in this period that Aymard's family members started making their first significant economic advancements through public administration, the military, banking, and the Church. This, then, is a history in which economic modernity is not synonymous with industrialization but is rather expanded to include what the author likens to the present-day service economy. The Revolution also affected marriage possibilities in Angoulême, first by significantly diminishing them and then by un-provincializing them. Personal destinies were reshaped in this period, and Rothschild is very successful in demonstrating the influence not only of the Revolution but also of international war, global commerce, and colonialism on this seemingly unchanging place in the French interior

While family is at the centre of this book, this is not a rise and fall saga. Rothschild does not attempt to offer a collective psychological portrait of the sort in Thomas Mann's *Buddenbrooks*. Indeed, personal relationships and the inner world of sentiments and ambitions are not the book's main subjects. Rather, family here is an analytical tool serving to trace social contiguities in time and space. The important exception to

this comes towards the end of the book with Charles Martial, the most famous member of the clan. Described as a ‘Napoleon of prayer and evangelization’ by his biographers or as a ‘mendicant millionaire’ by his Republican critics, Martial was a larger-than-life character and a foundational figure in the history of Catholic mission in the Near East and Africa. A prolific author who left a rich personal archive, Martial also stands in sharp contrast to the vast majority of his family and in particular to its women, who remain mostly invisible in the historical records. Mostly, but certainly not entirely, Rothschild has managed masterfully to recover the social and economic life of ordinary people and to piece together an original collage of one of the most tumultuous periods of modern history. The book challenges the exclusion of places like Angoulême and of individuals like Marie Aymard and her family from the history of French modernity. In this sense among others, *An Infinite History* is an imaginative contribution to scholarship about modern France and to historical writing.

Y Glazer-Eytan

CHARLES MOSELEY, *Hungry Heart Roaming. An Odyssey of Sorts*. (Eyewear Publishing, 2021, 473 pp)



Many of us have enjoyed Charles Moseley’s earlier books of memoirs, their associative linkage of shorter and longer episodes from a varied and active life and their delightfully learned excursions into archaeology, agriculture, botany, local history, literature ancient, medieval, and modern, and much else besides. But *Hungry Heart Roaming* is different. It has all the merits of Moseley’s other autobiographical entertainments; it offers a colourful kaleidoscope of people, places, and historical eras not touched on before, memories of colleagues and conversations and lusciously evoked food and drink in Florence or Bucharest, of buildings old and new in Tirana, Rome, or New York, of sunshine in the Mediterranean or the

Caribbean, and of driving rain in the Pennines. It stretches the reader's vocabulary by revelling, perhaps a little indecently, in the richness of that of its author: before you start, be sure you can tell your tods from your gimmers, your slades from your archivolts, can guddle with ease, and know how to use 'aftermath' correctly. But it also has a deeper structure and purpose than a mere miscellany. It ranges across most of Moseley's now eighty years and it poses the questions that naturally arise in the autumn of life (an image that recurs): what was it all about? what *is* it all about, 'this unintelligible world'?

At the beginning and the end, we see the author on a sea-shore with a bird of augury, a black-backed gull, poised to take off, at first summoning the short-trousered boy back from his *Westward Ho!* dreams of the uttermost parts of the earth to walk with his grandmother home to tea, and at the last waiting to call an old man, now standing beside his grandson, to journey into an even further beyond. With discreet but passionate love, the two main sections present the life in between as lived under the successive stars of Jenny, Charles Moseley's first wife, and Rosanna, his second, two periods separated by 'the long and lonely years' after Jenny's death, 'travelling alone to many places ... piling on the work ... wandering affably ... in and out of lighted rooms of talk and laughter ... before returning to the silence of the enduring dark'.

The light of a brilliant sun warms the opening set of recollections as two young lovers – 'two young ignoramuses', the old scholar admits, more ruefully than is really necessary – hike and hitch-hike through Greece, and the earliest monuments of European civilization, in a time before mass tourism when memories of the German occupation are fresh and bitter and a British flag sewn to a rucksack releases a flood of generous hospitality. Florence too, though remembered here in winter, still glows with the light of the paintings that Jenny has come to know and love, and the few beautifully chosen words on her death that then follow are the most moving in the book.

After the long lonely period 'in the Doldrums, going nowhere' (though actually to Albania, Bohemia, Romania, Hungary, and Rome), Rosanna enters Moseley's life, and he resumes his voyage with new purpose. But these older lovers are no ignoramuses. Knowledge grows with the years, with knowledge comes the ability to hear the memories stored in things and places, and with memory comes awareness of the shadows cast by light. Rosanna's family is Russian, German, and Jewish,

and with the visit to its home territory in Berlin the darkness of cruelty becomes horribly manifest on which has been built so much of the glory of the European civilization that began in Greece.

More than once the darkness has already peered out from behind the narrative. Even on a smallholding on the edge of the Fens you can find superimposed the traces of Neolithic, Bronze Age, Roman, Saxon, medieval and more recent life, and the knowledge that enables you to recognize these memories also compels you to recognize the sufferings by which these lives were marked. What is the meaning, the pattern, in the world-sorrow revealed to the roaming mind and body of this scholarly Odysseus? Numerous motifs, allusions, and remembered presences recur in his text: the Fall of Troy and the persecution of the Cathars, paths and pilgrimages and the monstrous Henry VIII, Robert Frost, Eliot's *Four Quartets*, Tolkien, C S Lewis, and George Macleod, Hector, Moseley's Labrador, and other dogs. But the dominant structuring motif is the one which, the author tells us, nearly gave the book its title: a murmuration of starlings. In the swirling and re-forming shapes of thousands of birds, all flying autonomously, orchestrated by no single mind, and making patterns briefly recognizable to an observer but not to them, Moseley sees an image of the human condition. For our individual identity and path in life is formed entirely by our relation to others, present and past, and together we build patterns of meaning, discernible perhaps to some future observer if not to ourselves, but even these are brief and soon break up. For a moment, however, the turmoil shapes itself into 'the Mystery of Love' and Charles Moseley glimpses a God who is a 'Victim', absorbing, 'like a sponge', the vinegar of human 'cruelty and fallenness'. Even though that moment too swirls away and leaves an old man on the sea-shore contemplating his last journey, 'the known cannot be un-known' and he knows that 'all manner of thing shall be well'. The layering at particular places of different historical epochs and different literary and personal associations makes *Hungry Heart Roaming* into something like a more approachably intimate variation on David Jones's *Anthemata*, and this fine and profound book is perhaps also best understood as a Christian epic poem.

N Boyle



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