



BALLIOL
COLLEGE
UNIVERSITY OF OXFORD

FLOREAT DOMUS

NEWS AND FEATURES FROM THE BALLIOL COMMUNITY | JUNE 2022



Balliol's biodiversity audit	12	Building community	10
Bees' needs: food for thought	18	Pandemic reflections	13
Working on environmental issues	34	The road to Genomics plc	20
		Was Raphael secretly at Balliol?	32

FLOREAT DOMUS

From the Master 1

NEWS HIGHLIGHTS 2

Awards 2

Buildings named after Balliol 'greats' 4

'Slavery in the Age of Revolution' 6
Naomi Tiley & Aishah Olubaji

Building a stronger community 10
Laura Durrant

Biodiversity at Balliol 12
Max Spokes & Kajuli Claeys

PAST AND PRESENT 13

Pandemic reflections 13
Keturah Sergeant, Evelina Griniute,
Poppy Sowerby & Petros Spanou

George Mallory and 'Sligger' 16
Stephen Golding

BOOKS AND RESEARCH 18

Food for thought 18
Ellen Baker

Transforming the future of healthcare 20
Professor Sir Peter Donnelly

Bookshelf 22

ALUMNI STORIES 24

The taming of an 18th-century virus 24
Lucy Ward

What happens after freedom? 26
Eleanor Shearer

Restoring nature's balance 27
Geoffrey William Evatt

Treasure hunting 30
Sir Richard Heygate

Raphael at the National Gallery 32
Professor Tom Henry & Professor David Ekserdjian

Global Balliol 34
Special feature by alumni



32



10



12



6



13



27



34



18

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Front and back cover: Balliol alumni reunite with friends for their graduation day, which was delayed by the pandemic. Photographs by Stuart Bebb.

From the Master

Dame Helen Ghosh DCB

If I am ever asked which was my favourite job in the course of my Civil Service career, I always say that it was working on local regeneration projects in some of the most disadvantaged areas of East London in the late 1990s. Not only did the experience teach me a lot about the impact that Government policies have on people's everyday lives: it also made me very thoughtful about the notion of 'community'.

In such a diverse and historically fluid part of the capital city, so many 'communities' overlapped, whether defined by ethnicity, religion, politics, wealth, employment or whatever people chose. This often led to disputes in local meetings about who were the true representatives of the community. I realised that the real 'community' were almost certainly not visible at all, too busy caring for their families or earning money to pay the bills to come along to a meeting.

Fast forward a quarter of the century, and the idea of 'community' still fascinates me. A college is made up in the same way as Tower Hamlets or Hackney of many overlapping communities: not just the four estates of academics, students, staff and alumni but a myriad of other identities defining their own community. I feel this strongly when I meet all our Freshers one-to-one towards the end of Michaelmas Term, and then catch up with them again at Master's Handshaking at the end of Hilary.

In Michaelmas Term, there is a strong sense of a single 'community of Freshers'. The same themes recur. When I ask to what people have found it most difficult to adjust, the answer is almost always 'How hard you have to work' and the associated challenge of organising yourself and meeting deadlines.

The next most frequent answer is how different it feels – by contrast to school – to be asked to express an opinion, when your tutor is far more expert in the subject than you are ('Why should they be interested in what I



think?'). Then there is linear algebra, which gets a lot of mentions. But most importantly, lots of talk of making friends, because 'It's a very friendly College' is the comment I probably hear more often than any other.

By the end of Hilary Term, many of them have spread their wings and joined all sorts of other communities. This year, there was an enormous amount of novice rowing, bird-watching, rugby, theatre production, football, singing, dancing, volunteering and just reading a good book going on. 'Bouldering', on the climbing wall at Oxford Brookes, seems to be very much a Thing.

Our formal College events celebrate different facets of our College community as we move through the calendar. This year with – we hope – the most constraining elements of the pandemic behind us, it was a treat to be able to hold in real life our Freshers Dinners for Undergraduates and Graduates (and a catch-up version for those who missed them last year), and then our St Catherine's Day Dinner in November for this year's finalists.

In February, we were able to invite a distinguished group of guests here for the Snell Dinner, which marks John Snell's 17th-century donation to create the Snell Exhibitioners and our resulting historic links to the University of Glasgow. The Hall was full, the silver gleamed and the candles spluttered. The fact that it was the first time in three years we had been able to hold the event gave the evening a particular sense of celebration and, yes, community.

I commented on this when I stood up to speak after dinner. I also took the opportunity to comment on an element of community that I felt we need to regain. The last two and a half years have been ones in which the sense of a single community within the College walls has come under stress. Students have come and gone, in and out of residence, staff have worked remotely, tutors have been teaching their students at the other end of a webcam. When we have been all together, we have been operating within the tight constraints of Covid regulation. So it has been hard to maintain (and for new students, develop) the sense that there is something about a college that is more than just a collection of heterogeneous groups and interests. We have also missed our face-to-face contact with alumni here and around the world and I'm looking forward in the coming year to the chance to meet up again.

We are lucky at Balliol that we have historically a strong sense of what we stand for. Academic rigour, engaging with the world, the freedom to express contrary views, independence of thought and social action are all things which people – alumni or not – would recognise as part of our 'brand'. The Ukrainian flag is flying from our flagpole as I write.

This is a wonderful basis on which to rebuild a single community in which all sorts of others may flourish. I feel it a privilege to have my part to play.

Awards

New Year Honours 2021



Peter Usborne (1958), founder and Managing Director, Usborne Publishing: Commander of the Order of the British Empire (CBE) for services to literature.

Thomas Cookson (1961), Chairman, Physics Partners, Kent: Member of the Order of the British Empire (MBE) for services to education.

Professor Jonathan Michie (1976), Professor of Innovation and Knowledge Exchange and President of Kellogg College, Oxford: Officer of the Order of the British Empire (OBE) for services to education.

Jeremy Mayhew (1977), Member of the Court of Common Council and lately Chairman, Finance Committee, City of London: Officer of the Order of the British Empire (OBE) for public and voluntary service.

Adrian Bird (1988), Director General, Foreign, Commonwealth and Development Office: Companion of the Order of the Bath (CB), for services to British foreign policy.

Fellows of the British Academy



Professor Helen Steward (Fellow and Tutor in Philosophy 1993–2007), Professor of Philosophy of Mind and Action in the Faculty of Arts, Humanities and Cultures (School of Philosophy, Religion and History of Science) at Leeds University.

Professor Gregory Hutchinson (1975), Regius Professor of Greek in the Faculty of Classics at Oxford University.

Professor Paul Roberts (1987), Professor of Criminal Jurisprudence in the Faculty of Social Sciences at Nottingham University.

Australia Day Honour 2022

John Wylie AC (1983): awarded the Companion of the Order of Australia, for eminent service to the community through leadership in the sporting, cultural, philanthropic and business sectors.

Senior Members

Recognition of Distinction by Oxford University:



Coralia Cartis (Fellow and Tutor in Mathematics, pictured left) gained the title Professor of Numerical Optimisation.

John-Paul Ghobrial (Lucas Fellow and Tutor in History) gained the title Professor of Modern and Global History.

Sebastian Shimeld (Julian Huxley Fellow and Tutor in Zoology) gained the title Professor of Evolutionary Developmental Biology.

Coralia Cartis (Fellow and Tutor in Mathematics): named a Fellow of the Alan Turing Institute.

Black Spartacus: The Epic Life of Toussaint Louverture (Allen Lane, 2020) by **Sudhir Hazareesingh** (CUF Lecturer in Politics and Tutorial Fellow in Politics): awarded the 2021 American Library in Paris Book Award, given annually to the most distinguished book, published in English and encompassing all genres, about France or the French.

Professor Jason Lotay (Professor of Pure Mathematics and Fellow and Tutor in Mathematics, pictured right): selected for the role of the Chancellor's Professor at UC Berkeley for 2022–2023.



Professor Adam Smyth (Professor of English Literature and the History of the Book, A.C. Bradley–J.C. Maxwell Fellow and Tutor in English Literature): elected as a Fellow of the Society of Antiquaries.

Professor Frances Kirwan (1981 and Emeritus Fellow), Savilian Professor of Geometry at Oxford University: awarded the Royal Society's Sylvester Medal 'for her research on quotients in algebraic geometry, including links with symplectic geometry and topology, which has had many applications'.

Professor Tom Melham (Professor of Computer Science and Fellow and Tutor in Computation): awarded a £3m Engineering and Physical Sciences Research Council (EPSRC) grant to direct RoaRQ, a programme that will establish a cross-disciplinary community of researchers in quantum computing and computer science, who will address the global challenge of delivering quantum computing that is robust, reliable, and trustworthy.

Professor Chris Minkowski (Emeritus Fellow): Principal Investigator on an Oriental Studies project that won a Leverhulme Trust Research Project Grant entitled 'The Mahābhārata's Supporting Texts in Literary Culture and History'.



Professor Gillian Morriss-Kay (Emeritus Fellow, pictured left): awarded the biennial Anatomical Society Prize Medal for 2020–2021.

Professor Sir Drummond Bone (1968, Master 2011–2018 and Honorary Fellow): appointed Chair of the National Library of Scotland.

Professor Sir Peter Donnelly FRS, FMedSci (1980 and Honorary Fellow), co-founder and CEO of Genomics: awarded the Royal Society's 2021 Gabor Medal for 'pioneering work in the genomic revolution in human disease research, transforming the understanding of meiotic recombination, and for developing new statistical methods'.

Atul Gawande (1987 and Honorary Fellow): appointed Assistant Administrator for Global Health at the United States Agency for International Development (USAID).

Andrew Graham (Master 2001–2011 and Honorary Fellow): awarded a Gold Medal by Charles University, Prague, for his contribution to reinvigorating the Europaeum, a network of Europe's leading universities.



Junior Members

Eugenia Beldarrain Gutierrez (2018, MEng): recognised as one of the top 10 students across Spain in the 'Civil, Other Engineering & Technology' category of the Nova 111 Student List.

Filip Mihov (2018, MCompSci, Computer Science): was in the Oxford University team that won the 139th Varsity chess match between Oxford and Cambridge.

Henry West (2018, DPhil Medical Sciences, pictured right): won the British Atherosclerosis Society's Early Career Investigator Competition 2021.



Petros Spanou (2018, DPhil History): awarded a 2021 Royal Historical Society/Institute of Historical Research Centenary Fellowship for doctoral research.

Mathias Gjesdal Hammer (2020, MPhil International Relations): was shortlisted for the Observer/Anthony Burgess prize for arts journalism 2022 with his review of *You Have Not Yet Been Defeated* by Alaa Abdel el-Fattah.

Old Members

Professor Jonathan Meakins (Nuffield Professor of Surgery and Professorial Fellow 2002–2008): selected for induction into the Canadian Medical Hall of Fame for 2022 for his outstanding contributions to medicine and the health sciences.



Professor David Clifton (Research Fellow in the Sciences and Lecturer in Engineering Science 2014–2018): named a Fellow of the Alan Turing Institute.

Professor Dilip Menon (1984): awarded a Science Breakthrough of the Year 2021 in Social Sciences and Humanities prize by the Falling Walls Foundation, for his work on theory from the global south.

Robin Walker (1997): appointed Minister of State for School Standards.

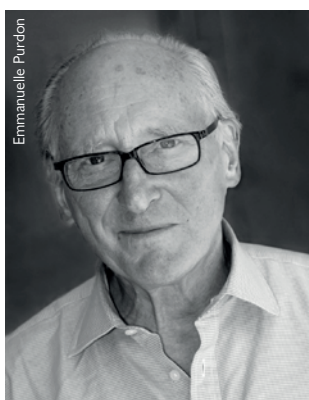


David Johnston (2000): appointed Parliamentary Private Secretary at the Department of Education.

See more awards for Old Members in News and Notes, a supplement to this magazine.

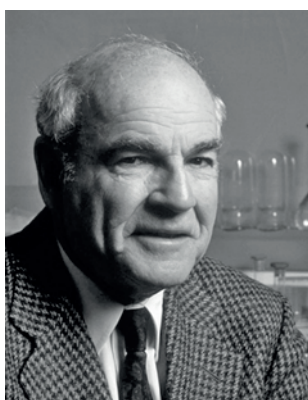
Buildings named after Balliol 'greats'

The eight new accommodation blocks at the Master's Field – which provide over 200 study bedrooms for undergraduate and graduate students – have been named after historic Balliol alumni and academics who reflect the diversity, values and history of the College.



Lord (Tom) Bingham of Cornhill PC KG
1954, Visitor 1986–2010 and
Honorary Fellow 1989–2010

Tom Bingham (1933–2010) was an eminent British judge and jurist who was successively Master of the Rolls, Lord Chief Justice of England and Wales, and the Senior Law Lord. He played a key role in the establishment of the UK Supreme Court. In that role, he wrote a number of judgements, defining the place of individual rights and the relationship between long-established principles of common law with the more recent obligations of international law. His lectures and writings, and in particular his book *The Rule of Law* (2010), continue to be seminal.



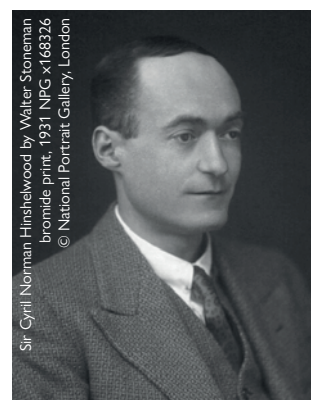
Professor Baruch (Barry) Blumberg
1955, George Eastman
Professor 1983–1994,
Master 1989–1994

Barry Blumberg (1925–2011) won the Nobel Prize for Medicine in 1976 for his work on the Hepatitis B virus. Having laid the foundations at the National Institute for Health, Blumberg and his team at the Institute for Cancer Research in Philadelphia in the mid-1960s enabled the first screening test for the Hepatitis B virus, to prevent its spread in blood donations, and the development of a vaccine. Blumberg later freely distributed his vaccine patent in order to promote its distribution by drug companies. He was the first Jewish Master of the College and the first American.



Dr Carol Clark
Tutorial Fellow 1973–2004

Carol Clark (1940–2015) was the first woman to be appointed a Fellow of Balliol, and the first woman to be a Fellow of any of the formerly all-male Oxford colleges. She wrote extensively on Montaigne, Rabelais and Baudelaire, and published a translation of Proust's *La Prisonnière*. Of all her publications, she was most proud of her *French Literature: A Beginner's Guide*, published in 2012, since she knew it would be of great practical use to her students.



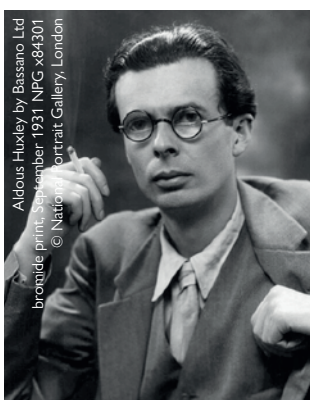
Sir Cyril Hinshelwood OM, PRS
1919, Fellow 1920–1921

Cyril Hinshelwood (1897–1967) won the Nobel Prize for Chemistry in 1956. It was as a tutor at Trinity College from 1921 to 1937 that he performed his fundamental work on chemical kinetics in the Balliol–Trinity Laboratories. He studied the explosive reaction of hydrogen and oxygen, and described the phenomenon of chain reactions (work for which he shared the Nobel Prize with N.N. Semenov). His subsequent work on chemical changes in the bacterial cell was of great importance in later work on antibiotics and therapeutic agents. The Langmuir–Hinshelwood process in heterogeneous catalysis is named after him.



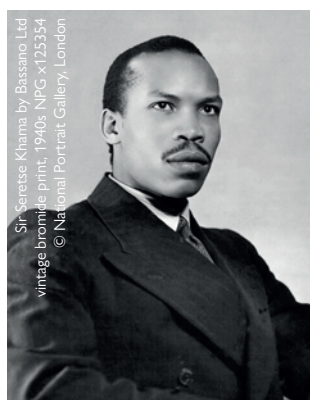
The Dervorguilla site

The buildings at the Master's Field and Jowett Walk are to be known collectively as the 'Dervorguilla site', in honour of Dervorguilla of Galloway, Balliol's co-founder and first benefactor. After the death of her husband, John de Balliol, who established the 'House of the Scholars of Balliol' around 1263, Dervorguilla endowed the College in 1269, so guaranteeing its future financially; and she gave Balliol its first Statutes in 1282, setting out rules for the daily life and work of the scholars.



Aldous Huxley
1913

Aldous Huxley (1894–1963) was an English writer and philosopher, best known for the dystopian novel *Brave New World* (1932). As well as fiction, he published poetry, journalism and screenplays. His novels and journalism increasingly expressed his pacifist views and he became interested in mysticism and universalism. These themes are reflected in his novel *Eyeless in Gaza* (1936). In *The Perennial Philosophy* (1945), he discussed the links between Western and Eastern mysticism, and *The Doors of Perception* (1954) describes his experience of taking psychedelic drugs. He was nominated for the Nobel Prize for Literature nine times.



Sir Seretse Khama
Honorary Fellow 1969–1980

Seretse Khama (1921–1980) was the first President of the Republic of Botswana, from 1966 until his death in 1980. After gaining his BA from Fort Hare University College in South Africa, he came to Balliol in 1945 to pursue studies in law and politics. He went on to train as a barrister in one of the British Inns of Court. As founder of the Bechuanaland Democratic Party and later as Prime Minister of what was then a British Protectorate, Khama played a key role in gaining the freedom of his country from colonial rule.



Professor Dame Frances Kirwan DBE
1981 and Fellow and Tutor in Mathematics 1986–2017

Frances Kirwan was in 2017 the first woman to be appointed Savilian Professor of Geometry in Oxford University, and the first to be elected to any of the historic Oxford chairs in mathematics. She was elected a Fellow of the Royal Society in 2001 (only the third female mathematician to attain this honour) and President of the London Mathematical Society from 2003 to 2005 (only the second woman ever to be elected). She was awarded a DBE in 2014 and, in 2021, received the very distinguished Royal Society Sylvester Medal.



Dr Lakshman Sarup
1916

Lakshman Sarup (1894–1946) was the first Oxford student to submit for a DPhil degree, which he was awarded in 1919 on the subject of Yaska's *Nirukta*, the oldest Sanskrit treatise on etymology. Born in Lahore, he came to Balliol on an Indian state scholarship, having obtained his MA in Sanskrit from Lahore's Oriental College. He was appointed Professor of Sanskrit Literature at Punjab University in 1920. In 1942 he was the first Indian scholar to be appointed Principal of the Oriental College of the University of the Punjab.



Paper artist Nicola Dobrowolski (left) and researcher Tamyah Jones collaborate in Nicola's studio.

'Slavery in the Age of Revolution'

Curators Naomi Tiley (Librarian) and Aishah Olubaji (Early Career Librarian) reflect on the collaborative work behind the College's recent exhibition

How can an exhibition do justice to the experience of 12.5 million African people taken from their families, their homes and their communities, and sold into brutal slavery? How, especially, when those people and their experiences have been written out of the historical record by those who sought to make them an expendable resource? These were some of the questions that came up as we curated the Library's autumn 2021 exhibition, *Slavery in the Age of Revolution*.

When Honorary Fellow Oliver Franklin (1967), enthused by the work of Sudhir Hazareesingh (CUF Lecturer in Politics and Tutorial Fellow in

'How can we revive the power stolen from those overlooked or erased from the historical record?'

Politics) on Toussaint Louverture and the Haitian Revolution, challenged us to see what the College had in its historic collections to tell the story of transatlantic slavery, we accepted, with the proviso that there might not be enough relevant material for an

exhibition. But as we delved into the collections of manuscripts, archives and early printed books, we realised we need not have hesitated.

We did plenty of key word searching in our catalogues, from directly topical (slavery, plantation, revolution, rebellion, colonies), to geographical (Africa, Caribbean, Haiti, America), to trade and economics (shells, cotton, sugar, tin, coffee, shipping, maritime). Inspired by Sudhir's research, the exhibition focused on the 'Age of Revolution', so we also searched by date, looking through material in our catalogues from the late 18th and early 19th centuries. This was a particularly

‘We came to further appreciate how integral transatlantic slavery was to 18th-century economies and social structures.’

useful way to search the College archives: we were looking for evidence of attitudes to and involvement in transatlantic slavery in Balliol's community, and we did not know where we would find it – in College meeting minutes, former Masters' letters, or account books. As our searches yielded an abundance of items, from maps of Barbados and Jamaica to travellers' accounts of the Atlantic world, receipts for cash crops to news articles about Tacky's revolt, it became a matter not of what we could find but of what we would have to leave out.

A lot of background reading (neither of us were subject specialists), twinned with prior knowledge of the collections, brought other leads. For example, when we read that sharks learnt to follow slave ships, following trails of the many discarded bodies of enslaved people, we asked ourselves whether sharks featured in the Royal Society's striking book on fish from the late 17th century. The picture of the blue shark we found was so frightening as to make us wonder whether the artist's impression could

have been influenced by knowledge of transatlantic shipping.

In some cases, discoveries were due to luck. We almost missed a letter from a plantation owner in Saint-Domingue describing events in the Haitian Revolution, as it was in a collection of letters dating outside our period and described in our catalogue as 'relating to the quartering of troops at St Domingo'. In a very sparingly described collection, we were lucky that the cataloguer had even left that much of a clue to guide us.

Our research was supported by our academic co-curators, one of whom, Seamus Perry (Massey Fellow and Tutor in English), informed us of the anti-slavery poems by Robert Southey (Balliol 1792) and wrote an essay on them for the exhibition catalogue. Throughout the research process, we came to appreciate further how integral transatlantic slavery was to 18th-century economies and social structures. Consequently, perhaps more notable than the unexpected abundance of relevant materials we



Blue shark from *De Historia Piscium* published by the Royal Society in 1686.

found was the absence of evidence in the College archive about its 18th-century community's opinions of transatlantic slavery. Beyond the work of Southey, we were unable to find any evidence of discussion, let alone dissension on the subject.

Our academic co-curators were crucial in making the final selection and shaping the narrative of the exhibition. In particular, conversations with Marisa Fuentes (Oliver Smithies Visiting Fellow 2019–2020), author of



1794 map of Jamaica showing maroon towns, such as Moore Town and Nanny Town, by underlining.

Dispossessed Lives: Enslaved Women, Violence, and the Archive, and Adrienne Whalley (Director of Education and Community Engagement, Museum of the American Revolution) helped us to form the guiding tenets of the exhibition.

Together we decided the exhibition should foreground the experiences of enslaved people; focus on the role of resistance by enslaved and formerly enslaved people in bringing about abolition; use the College's history as a lens through which to view British involvement in and attitudes to transatlantic slavery; and explore the bias of the sources. To succeed, we had to resist treading well-worn documentary paths. For example, it is easy to find out a lot about the Beckford family but it was hard to uncover anything about the individuals who were forced to labour on their plantations. We had to consider: how do we properly address the gross power held by these men without perpetuating that power in the narrative? How can we revive the power stolen from those overlooked or erased from the historical record?

We consciously cut down the amount of biographical information we included about the Beckfords, and turned the focus on to the people they exploited. Despite the absences in the archival records, we tried to trace the lives of the people whose labour and pain built the wealth and power held by families like the Beckfords. We scoured the records of plantation holdings to find the threads of individual lives and families, in listings that recognised birth and death as changes in stock levels. We also foregrounded the experiences of those who had been enslaved, in their own words, drawn from rare first-person accounts such as those of Olaudah Equiano and Mary Prince. Oliver Franklin's generous gift of the rare and ephemeral first issue of the *Anti-Slavery Record*, featuring a contemporary likeness of Toussaint Louverture, gave us a striking visual with which to attend to those who fought for freedom.

As we worked on the exhibition, we also embarked on a project with the Museum of the American Revolution in Philadelphia to host a series of seminars for teachers in the

UK and the US to discuss teaching transatlantic slavery. To support this project, the College commissioned innovative production company per stellars to create a film summarising the exhibition that could be watched by our geographically dispersed group of teachers and form a basis for the seminar discussions.

Working with the film crew was an intense but rewarding experience. The process influenced the whole exhibition, from the beautiful stills photography of Laura Hinski, featured in the exhibition catalogue, to the perspectives on the subject matter and creative approaches brought by the young professional photographers, cinematographers, artists and researchers, who were enabled to gain paid experience from the project by the generosity of Ian Glick QC (1966). Most impactful of their contributions were the stunning scenes created by Nicola Dobrowolski of DobrowolskiDesigns. These were made primarily for the film but it became clear that their emotive power would enhance the experience of the physical exhibition.



The crew from per stellars interview Sudhir Hazareesingh in the Master's Dining Room.

It was thanks to this collaboration between a wide range of contributors that *Slavery in the Age of Revolution* accomplished a nuanced portrayal of a complex and distressing subject. The response to the exhibition from over 600 people who visited and many others who watched the film has been overwhelmingly positive. Here are just a few of the comments we received:

‘Thank you for this exhibition, and I hope that it has proved as enlightening and moving for other visitors as it has for me. The artwork is particularly wrenching and humanising and inspiring. I will be thinking about it for a long while’

Jeff Bowersox

‘Thank you. It’s about time. We need more of this. Might there be hope other colleges begin this reckoning’

‘I thought the exhibition was great and I really liked the pop-ups/paper cut out thingies. I would recommend it to lots of people. I really enjoyed spending time in here!’

Eleanor, age 11

‘Powerful and moving exhibition. While it’s something we’re all aware of, it’s so important to learn of the lived experiences of those silenced peoples. A phenomenal and moving exhibition – and a fantastic starting point for delving deeper into the past.’

Anonymous



Aishah Olubaji (left) and Naomi Tiley (right) preparing an exhibit for photography.



People visiting the exhibition at the Historic Collections Centre.

Watching people absorb the exhibition was a reminder of the power of historic collections to engage people in lives past or distant from their own, and make connections to how we live today. As one visitor to the exhibition (Raja Karthikeya, Fellow, Pembroke College) said: ‘It is hard to believe that human beings could treat fellow human beings so brutally for so long. Slavery can never be forgotten and it should serve as caution for the future, as a reason to counter prejudice.’

At the time of writing, the teachers’ seminar group have so far heard from speakers including Dr José Lingna Nafafé on his research on Lourenço da Silva Mendonça and the Black Atlantic Abolitionist Movement in the 17th century; Professor Toby Green, author of *A Fistful of Shells: West Africa from the Rise of the Slave Trade to the Age*

of Revolution; and of course Sudhir Hazareesingh on Toussaint Louverture. The teachers and per stellas have workshopped the amazing content created for the film to begin developing the high-quality classroom resources that teachers need to do justice to the subject. The goal is to make these resources freely available, so that as many teachers and schoolchildren as possible can benefit from them and become aware of the importance of the transatlantic slave trade and its lasting impact on society, but the creation of these resources is dependent on further funding.

The exhibition film and catalogue are available on the College website: www.balliol.ox.ac.uk/news/2021/sepember/new-exhibition-by-balliol-library

Building a stronger community

Danish Malik (2019, Medical Sciences) interviewed Laura Durrant (1999) about her career and her work with Balliol students

Workshops with students

In response to a report on behalf of Balliol's BME Society detailing their experiences of discrimination and harassment, in 2020 Balliol began a programme to explore and understand how to build a resilient anti-racist culture for the College community.

As a part of this programme it engaged Laura Durrant, who delivered a workshop for JCR and MCR students of colour, to help equip them with tools to navigate difficult situations in their time as a student and later in professional settings; and more recently she facilitated four workshop sessions on racism and discrimination for all Freshers in the JCR. Danish Malik, BME Society President, was one of the students involved in the JCR workshops.

'I try to move people beyond thinking that racism is the worst thing anyone can do, to seeing that we are all complicit, often without any awareness or intention.'

DM: Can you provide a little bit of background about your time at Balliol and your career?

I matriculated in 1999 and studied Jurisprudence. I had a brilliant time at Balliol, and I still see a lot of my contemporaries whenever I can.

After College I trod the classic path of a commercial lawyer, qualifying and working for Herbert Smith (now Herbert Smith Freehills) in London, with the odd stint overseas. Then I moved in house to become Head of Litigation, Regulatory and Investigations at the Royal Bank of Scotland, dealing with issues arising from the 2008 financial crisis. That was a really interesting time.

In 2019 I left law to think a bit more creatively about my career and pursue some passion projects. One of those has been setting up a business in 2021 called Equitura with another Balliol alumna, Jillian Naylor (1996). Equitura works with a wide range of organisations to support cultural change and effective diverse and inclusive teams.

DM: In 2021 you worked with the College on issues related to anti-racism. How did that project arise?

I had been working with a lot of organisations following the resurgence of the focus on Black Lives Matter after the killing of George Floyd in 2020. In particular, I'd been undertaking cultural reviews, investigations, and training – often looking at issues associated with race. When I saw an email from Dame Helen Ghosh (Master) to Old Members about the student report on experiences

of racism at College and in Oxford, it got me thinking about my own time at College and I offered my support.

It's really interesting, looking back now, to reflect that when I was at Balliol there were very few racial minorities, let alone black people at the University. I'm mixed heritage (Caribbean/British), and it wasn't until I got to Balliol that I felt the need to classify myself as black; but, in that environment, it became important to me, so I experienced the process of racialisation at that point. There was also an interesting dynamic with class and race that wasn't easy to articulate back then, but I definitely struggled with it at times as the first person in my family to go to university. And I recognised a lot of the experiences the students had reported.

DM: How did you approach the discussions with the students?

I try to move people beyond thinking that racism is the worst thing anyone can do, to seeing that we are all complicit, often without any awareness or intention. We just don't see it, because it's such a complicated area and every perspective is different, and made more opaque by cultural and social differences. I'm currently studying for an MA on Race, Ethnicity and Postcolonial Studies at University College London, so I'm fully immersed in that complexity from an academic standpoint, but obviously very few people have the capacity to do the same!

Some racist behaviours are reprehensible, but the majority of the day-to-day experiences people report happen because we exist in a society that racialises people in ways it's hard

to see. If people can see and accept their impact, rather than thinking 'I couldn't possibly be racist because I'm a good person', that goes a long way to progressing the discussion and improving the experiences of people of colour day to day.

DM: What examples of discrimination have you faced in your life?

That's a hard question to answer because you never know what you would experience if you were different. I've definitely experienced microaggressions and bias as a woman, a mother, and a person of colour in my life. But it's interesting how important context is to reactions in those moments – whether something has been experienced repeatedly, how confident one feels in a particular context, or whether there's a concern that the discrimination indicates a fundamental challenge to what can be achieved.

One of the amazing things about being a student again myself is meeting (very much) more recent graduates and realising their different generational perspectives. I was asked by one of my UCL peers if my undergraduate years had been a tough experience for a woman of colour and the answer was 'not really'. It was a completely different time. We were just coming through the 1990s and the economy was growing. Everyone was sure to get a job and we were being courted by big organisations. There wasn't a sense of critical analysis of the world in the same way that there is for today's generation. Sure, there would have been moments and issues, but none of it sits that heavily with you when your wider world is actually quite a positive place; I was also in a position of huge privilege being at Balliol. I think we need to recognise how different things can seem now and why activism has come so much more to the fore for undergraduates and new arrivals in the workplace.

It can be challenging for leaders but it's not a bad thing.

DM: Through coming back and interacting with the student body in the sessions you ran, how do you think Balliol has changed since you were a student there?

Apart from the new furniture in the JCR, I'd say not at all! I enjoyed being challenged in the sessions – it's always good to be disagreed with. I hope we created an environment in which there were no right or wrong views, and that everyone felt able to raise whatever was on their minds.

DM: What do you think student and corporate diversity training currently gets wrong?

Too often there's this tick-the-box, 'This is good, this is bad' approach and once people attend training they think 'Great, I'm anti-racist!' There's very little recognition of the huge shades of grey and the complex history involved which we can't unwind. In order to progress, we have to see that history and equip ourselves to analyse it critically for ourselves.



Laura Durrant

'I enjoyed being challenged in the sessions – it's always good to be disagreed with. I hope we created an environment in which there were no right or wrong views.'

Biodiversity at Balliol

Max Spokes (2019) and Kajuli Claeys (2019) report on doing an audit at the Broad Street site

When the College was selected to take part in a biodiversity audit as a pilot trial conducted by the Conference of Colleges, the Master asked us, as JCR Environment and Ethics Representatives at the time, if we could coordinate the undergraduate contribution. The aim of the audit, which took place in 9th and 10th weeks of Trinity Term 2021, was to produce a baseline of the biodiversity of Balliol's sites: Broad Street, Jowett Walk, the Master's Field and Holywell Manor. It is hoped that the metrics used in the audit will be repeated in future years in order to indicate trends, as well as provide data against which targets can be set, as the College looks to improve the biodiversity on its sites.

With the help of volunteers from the undergraduate community, over the two weeks we took measurements and made surveys of several aspects of Balliol's biodiversity on the Broad Street site, collecting data on land cover types, trees, birds, insects and earthworms. This work involved:

- Surveying the land to gauge how much is covered by trees, lawn and herbaceous borders. From this the amount of accumulated carbon stored in the vegetation biomass could be determined, as well as the amount of carbon to be sequestered from the atmosphere each year.
- Measuring the number of trees, as well as the circumference of their trunks. This was an enjoyable if slightly perilous task involving a multitude of thorns, awkward branches and attempting to fit a tape measure around some of our oldest trees on the Broad Street site. Special thanks at this point should go to Zack Miodownik for enthusiastically offering his services as an excellent tree hugger!
- Getting up in the crisp early hours of bright June mornings to watch and listen to the dawn chorus as the rest of College was taking a well-earned rest after the examination season. On these outings we saw and heard a variety of birds, many of which are of conservation concern, including the song thrush. A special mention should be given to Levi Arden and Matilda Gettins for helping us on the Broad Street site with these audits, and sacrificing their sleep for the cause!
- Setting out various coloured trays, dotted around College grounds, in order to measure numbers and species of beetles, flies, bees and wasps. The results from this aspect of the audit were particularly pleasing: Balliol ranked second out of the 20 colleges in the trial in terms of insect abundance, with the Master's Garden on Broad Street hosting the most parasitoid wasps of any of the 58 sites across the 20 colleges.
- Digging into Balliol grounds themselves to search for various types of earthworm – soil feeding, deep living, and surface feeding.



'Balliol has an important role in ensuring that its sites provide rich and varied habitats for wildlife in Oxford.'

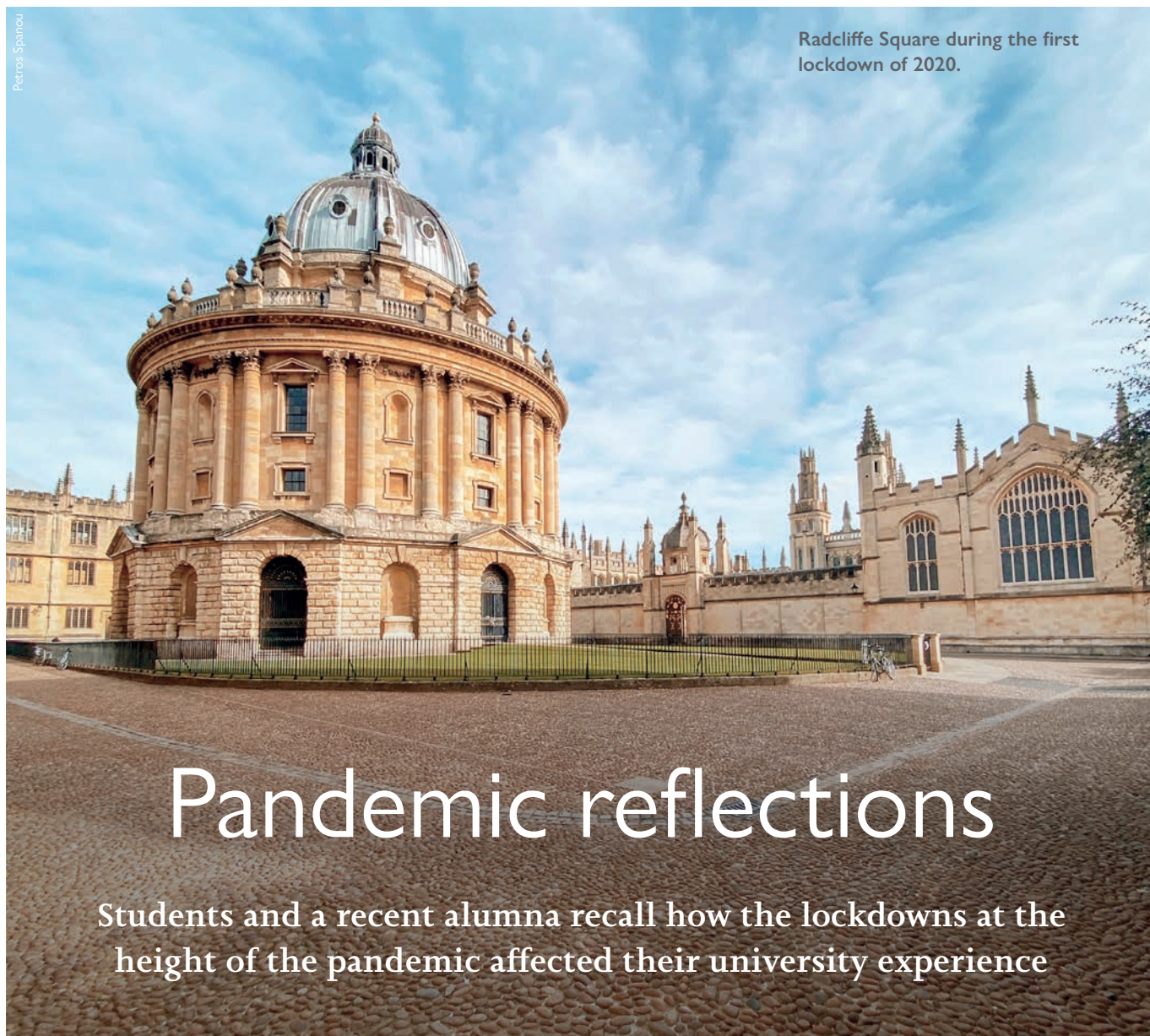
Max Spokes surveying land cover in the Back Quad of Balliol College

The data collected at all Balliol's sites was passed on to Dr Jonathan Green at the Department of Zoology, as well as Blanche Delaney from the Conference of Colleges, and over the summer it was collated and analysed to produce a baseline from which we as a College can produce biodiversity targets for all our sites. The biodiversity crisis facing our planet is equally as grave as the climate crisis, yet it has been given far less attention. Balliol has an important role in ensuring that its sites provide rich and varied habitats for wildlife in Oxford, and the undergraduate body has shown a keen interest in supporting the College in working to improve our biodiversity.

The report is available at www.balliol.ox.ac.uk/biodiversity.

Petros Spanou

Radcliffe Square during the first lockdown of 2020.



Pandemic reflections

Students and a recent alumna recall how the lockdowns at the height of the pandemic affected their university experience

Keturah Sergeant (2020, Classical Archaeology and Ancient History)

When the Covid-19 pandemic hit, in my second year of A levels, it prevented me from taking my exams and following a natural progression to university. Even my first planned goodbyes, those intended for my friends and tutors at college, were put on hold. I was extremely fortunate to have a friend from church, who is only a year older than me, living with us. I was able to have normal interactions with at least

one person my age and that helped me greatly. Once my grades had come through, I was also able to look forward to university, which gave me a purpose again, rather than just getting through day by day.

Unfortunately, my transition to university wasn't what I had expected. My entire first year ended up being online and in Hilary Term I couldn't return to Oxford. It hasn't been easy to go through several transitions, to a new academic environment as well as a new physical one, alongside the pandemic. However, I have a new drive to appreciate the opportunities I am given as we slowly learn to live with this new, permanent obstacle. Like me, I am sure the community at Balliol College have a new energy to change how we think and move forward towards becoming better versions of ourselves. We have learnt that we can change and adapt when situations become hard, that sometimes we need to take initiative and move forward because we need to make the most of every day we are given.

'It hasn't been easy to go through several transitions, to a new academic environment as well as a new physical one, alongside the pandemic.'

Evelina Griniute (2019, PPE)

Studying during the height of the pandemic was undeniably difficult, strongly altering my university experience. Perhaps the most prominent effect was the weakened sense that I was part of the Balliol community. That feeling of togetherness that comes from being near other undergraduates in your college, from living together, sharing social spaces as well as learning together, is incredibly strong at Balliol. It immerses you in university life and staying at home for periods of the pandemic seriously reduced that immersion. I also keenly felt the loss of alternative places to study. Pre-Covid-19, I took full advantage of the plethora of study spaces open to me: different libraries, coffee shops, the JCR ... When the only option is the desk in your bedroom, the scenery gets old – fast – and I found that quite demotivating.

Yet despite these difficulties, it is remarkable how resilient most aspects of university life have been to the obstacles the pandemic has posed. Social opportunities were very limited during lockdown, but my roommates and I (we were living out) compensated by ordering take-out and having game nights, taking turns to cook Sunday breakfasts and dinners for each other and becoming extremely invested in that year's Great British Bake Off, which we watched together. One

might think that internship opportunities would have been severely depleted, but I was still able to engage in several fascinating and rewarding placements remotely; tutoring for Schools Plus, for example, changed to tutoring a student one-on-one remotely, which I found even more effective than going into schools to work with groups and achieved more. Societies also did a wonderful job of maintaining their activities during lockdown.

‘That feeling of togetherness that comes from ... living together ... as well as learning together ... is incredibly strong at Balliol, and staying at home seriously reduced that.’



Poppy Sowerby

‘I finished university in summer 2020 ... at my kitchen table at home after a four-hour exam.’

Poppy Sowerby (2017)

I finished university in summer 2020. I was at my kitchen table at home where, after a four-hour exam, I closed my laptop and walked like a zombie back to my bedroom. The exam panic had gone, but the full weight of a missed final term suddenly took over.

A few weeks later, I drove some mates down into a drizzly Oxford, where we sat in pubs and parks and talked. It was strange, like coming back as a tourist; in Cowley, the second-years zoomed around on their bikes, stressed about this essay or that tute or any number of things that would never apply to us again.

The next afternoon, we walked into College to find the gardens in full bloom. When we'd left just before the first lockdown, spring was only just arriving. I remembered the last day. We'd sat around in cold sunshine by the Buttery; the greatest impact of Covid we could envision was our dissertations ('fingers crossed') being cancelled. Silly children.

There was a creeping irony to that moment, seeing the Garden Quad in eerie silence. Some of the best moments of my life, now unreachable, had been in this deserted space. It was hard to talk, something I don't usually struggle with.

More than anything else, I remember lots of laughter and affection at Balliol. As an undergrad, I wouldn't be caught dead being sentimental, but as we slumped quietly out of College and on to whatever was next, I had to chokingly admit to myself that I missed it – all of it.



Petros Spanou (2018, DPhil History)

I spent the whole of the first national lockdown living in Holywell Manor.

For me the year 2020 began with the most exciting prospects: I started writing the first chapter of my thesis, and I was working as a graduate teaching assistant in the History Faculty. I will never forget how happy I was and how rewarding I found my experience of tutorials and classes. But it was also a time of uncertainty and concern: Britain was leaving the European Union (something which had a direct impact on me as a citizen from an EU country), and the global health situation was spiralling out of control.

By the end of the term, it was clear that the world was at a critical point. Then came the lockdown in March. Whatever joy, intellectual excitement, and strength I had gathered in the first months of the year vanished. It did not help that most people I knew in Oxford left before the lockdown.

Loneliness gave way to sadness, and sadness to anxiety, which in turn became so crippling that I could not work properly. My productivity declined and the necessary focus for academic work was just not there. The closure of libraries, the lack of human contact, and the inability to see my supervisors face to face all had a negative impact on my progress. But amidst everything that was going on, I would gain strength from the spirit of community that was being fostered, even in a socially distanced way, in the Graduate Centre.

It was my passion for photography, however, that did more than anything else to reconcile me to the new situation.

I started my own little project entitled 'Documenting Emptiness'. When I arrived in Oxford in 2017, I was struck by how full the streets were, brimming with life and all kinds of sounds. The pandemic radically transformed the city. The warning health signs in the streets, the arrows on pavements

The first photo that I took was in mid-March 2020, right before the UK went into the first lockdown. It was captured from the steps leading to Balliol's magnificent Victorian hall. Although it was the end of term, the College was quieter than usual. Only two people appear in the background. This was the photo that gave me the idea of documenting the impact of the pandemic on Oxford, particularly its transformation from a place bustling with life to one which was rapidly falling into stillness.

guiding people, and the council advice posted all over the centre made the experience of living in Oxford surreal. The most heart-breaking aspect was 'encountering' the town's 'emptiness': silent streets, little or no traffic, closed shops, the shut door of the Bodleian. In a way the city's emptiness reflected the feeling of emptiness that I was experiencing. Being away from my family and friends for more than a year, and experiencing anxiety about the impact of the pandemic on my academic progress, created a void within me.

I have always loved photography. From a young age I would collect photographs from newspapers and magazines. I was particularly fascinated by photographing nature and architecture. But this time it was different: taking photographs was more than just an act of capturing my surroundings. During the lockdown, it also became a coping mechanism. At a fundamental level, it helped me digest and rationalise the situation; in a more general sense, it allowed me to be reconciled with the internal and external manifestations of 'emptiness'. The absence of movement in the town and the prolonged absence of human interaction rendered the 'familiar' into the 'unfamiliar'. Capturing the 'unfamiliar' in a visual manner was a way for me to come to terms with what was happening.

My photographs document the town's emptiness, purposefully juxtaposing it with the loveliness and splendour of Oxford's architecture. In my eyes the ancient buildings of Oxford, which have witnessed many historic events including plagues, as well as the changing seasons, are visual reminders that life continues, that this too shall pass and that 'emptiness' will once again give way to fullness.



'It was my passion for photography that did more than anything else to reconcile me to the new situation.'

George Mallory and ‘Sligger’

Stephen Golding (Emeritus Fellow, University College) discovered a friendship between the mountaineer and a Balliol don



Balliol Historic Collections, Urquhart Album 6, FF06.05E

George Mallory photographed in 1911 by Sligger while rowing on the Thames (Arthur Kirby behind).

‘Photographs indicate a close friendship between the two men, and ... that the friendship was still active the year before George died on Everest.’

In 2012 the journalist Peter Gillman (Univ, 1961) visited the Chalet des Anglais in the French Alps for the first time. A mountain writer and biographer of George Mallory (who famously disappeared while climbing Everest in 1924), Peter was excited to find in the chalet library a number of books from George’s early climbing partner, Cottie Sanders, later Lady Mary O’Malley and the novelist Ann Bridge. The sense of history unfolding was increased by the discovery of Cottie’s marginal note in her copy of *The Climbs on Lliwedd*: ‘Jan 5, 1911, with GHL Mallory’.

The chalet library is that of Francis Urquhart (Balliol 1890 and Fellow 1896–1934), known as ‘Sligger’, who began the tradition of annual summer reading parties at the Chalet des Anglais near Mont Blanc in 1891 – parties that continue to be enjoyed by students at Balliol, Univ and New Colleges, who share the use of the chalet today. Sligger was a keen amateur photographer and he developed his prints in his rooms in College. As well as photographs he put in the diaries of the chalet parties, Balliol Archives hold extensive photograph albums that record his life at Balliol, the chalet parties and his vacation tours, all carefully annotated with dates, places and names of individuals. While preparing my book on the history of the chalet, I found in these albums – which might be justifiably entitled ‘good-looking young men I have known’ (this is not the place to debate the homosocial aspects of Edwardian college life) – evidence of a friendship between Sligger and George Mallory.

A series from 1911 shows that George visited Balliol and Sligger took him rowing. George had captained rowing at his Cambridge college, so this is not surprising. A 1913 photograph shows George in contemplative and wistful mode in the bay window of Sligger’s room in Balliol. Many photographs of George Mallory suggest that he was very camera-conscious, which may have resulted from his friendships with the Bloomsbury Group and especially a period of nude modelling he did for the artist Duncan Grant. Both Balliol visits took place while George was travelling back from his traditional Easter climbing in Snowdonia. By 1915 he had married and was teaching at Charterhouse, and Sligger’s photographs record a weekend Sligger spent with George and his wife. They include one of only two known photographs showing George and Ruth Mallory together.

How did Mallory and Sligger meet? Sligger gave researchers a challenge when he instructed Cyril Bailey that after his death his papers were to be either returned to the author or destroyed. This was not unusual for the time: as Dean of Balliol, Sligger had been responsible for discipline and his records probably held accounts of incidents which

‘Sligger was obsessional about his guests signing the chalet diary and, exciting though it would have been to find it there, the diaries never acquired George’s signature.’

many of those who went on to be ‘good and great’ might have preferred to be suppressed. In George’s case his letters were returned to Ruth Mallory, because George had died 10 years before Sligger.

We know this and that the letters existed in the Mallory family collection because they are quoted by Mallory’s early biographers, his friend David Pye and his son-in-law David Robertson. From them we learn that George was appointed to teach history at Charterhouse in 1910. His superior was Frank Fletcher (Balliol 1885), a close friend of Sligger’s and a chaletite in 1894 and 1896. Fletcher was keen that his best pupils should obtain Oxbridge entrance and gave George the task of preparing them (Alan Bennett’s *The History Boys* comes to mind). Since Sligger was the leading history tutor at Balliol, it was natural that Fletcher should put George in touch with him.

The 1911, 1913 and 1915 photographs indicate a close friendship between the two men, and an autographed portrait photograph of Mallory taken in New York in 1923 when he was on a lecture tour and sent by him, also in Sligger’s albums, indicates that the friendship was still active the year before George died on Everest. Such a friendship was entirely characteristic of Sligger, who had a taste for surrounding himself with athletic and good-looking young men, and the young Mallory certainly met that description, as Lytton Strachey expressed only too lyrically during his time at Cambridge. However, it is notable that there was nothing misogynistic in Sligger’s friendships; he was typically welcoming and generous to the wives of colleagues and friends who married.

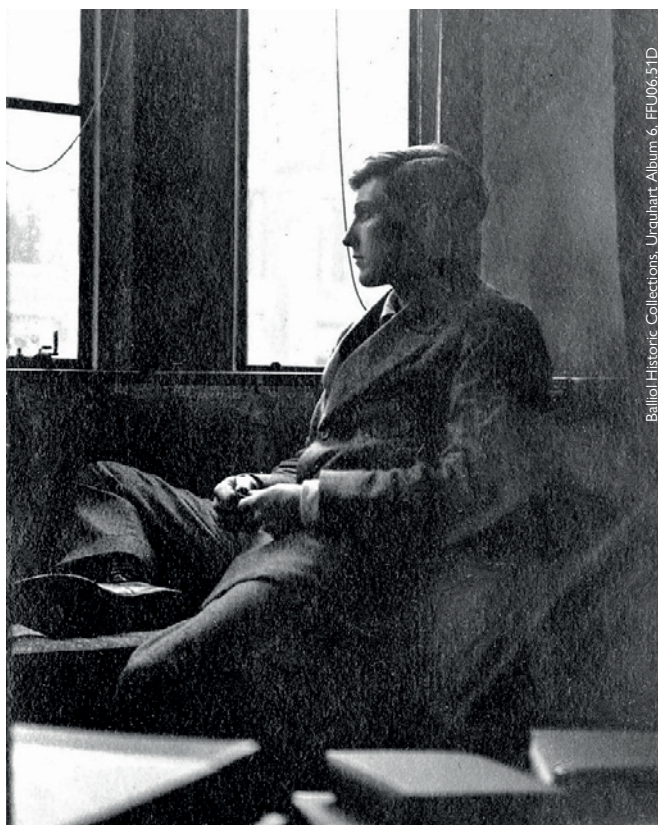
So was Mallory ever invited to the chalet? In the case of Cottie’s books, the trail does not lead to a connection between George Mallory and the chalet. Some of the books date from after 1924, when George died on Everest. Lady Mary and her husband retired to Oxford and their son, who predeceased them, was a Balliol alumnus, so it seems likely that the chalet acquired the books through a Balliol connection.

Sligger always maintained that the chalet was never a base for climbing and by the time the two men met George had already become one of the most distinguished of young British climbers. However, it is unthinkable that Sligger would have allowed the opportunity to pass when for him an invitation to the chalet was the ultimate gesture of friendship. In my view it is probable that the invitation was made and equally probable that it was politely declined. Sligger was obsessional about his guests signing the chalet diary and, exciting though it would have been to find it there, the diaries never acquired George’s signature.

Finally, George’s friend David Pye reported that George had told him that Sligger was pressing him to become a don. George’s academic record at Cambridge had not been that impressive but in Sligger’s time dons were appointed as much for their pastoral skills as for scholarship. In fact George decided that becoming a don was not his destiny, but it is intriguing to contemplate that if Sligger had prevailed and George Mallory had ended up teaching history at Balliol the stories of both the College and Everest exploration might have been very different.

To purchase Dr Golding’s book *Oxford University on Mont Blanc: The Life of the Chalet des Anglais* (Profile, 2022), please contact him at stephen.golding@nds.ox.ac.uk.

If you would like to make a gift to the Chalet Fund, please go to www.alumniweb.ox.ac.uk/balliol/support/chalet.



George in the window of Sligger’s room in 1913.

Balliol Historic Collections, Urquhart Album 6, FFU06.51D

The buff-tailed bumblebee
(*Bombus terrestris*).

SimonG / stock.adobe.com

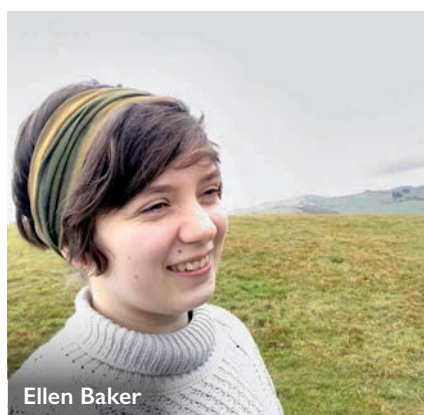


Food for thought

Ellen Baker (2019, DPhil Environmental Research NERC DTP) describes her research on floral resources for bees

If you look out of your nearest window, can you see a plant that will flower in the coming year? If yes, will it make lots of flowers or just a few? Is it brightly coloured or strong smelling? Is it shaped like a tube or open and flat? For bees, the availability of different flowers represents their choice of food. The shape, size, colour and scent of a flower all serve to signal whether a bee should visit a particular species and to help it remember which species serve the good stuff. However, in a fast-changing world the structure of plant communities is rapidly altering, leading to the disappearance of many important bee food sources.

Like humans, bees require a variety of nutrients in their diet: they need certain levels of protein, fats, vitamins and minerals in order to grow and develop into healthy adults. Our understanding of what exactly they require, how they detect it and the consequences of its absence is constantly advancing. We know, though, that bees can display



‘The structure of plant communities is rapidly altering, leading to the disappearance of many important bee food sources.’

preferences for certain ratios of macronutrients and that they find some substances appealing or even addictive. The ability to sort the desirable from the undesirable has evolved in response to the range of food qualities that they encounter in nature.

Flowers produce two main sources of food that bees forage for: nectar, a sugary secretion which contains mainly carbohydrate and is drunk by bees using a tongue-like appendage known as a proboscis; and pollen, a grainy substance which sticks to parts of the insect body and contains a wide range of macronutrients including protein and fats. The nutritional profile of these foodstuffs varies massively between plant species, some providing the equivalent of a balanced meal and others stale white bread. Such variation places pressure on bees to be selective in their dinner destination.

To better understand the variation available, my research focuses on the composition of certain fats in the pollen of different flowers. Bees use



Ellen Baker doing fieldwork.

‘In order to ensure that the flowers that are best for bees are available to them, we need to know exactly what bees need.’

fats as an energy store, to help build hormones and to maintain membranes. Understanding the availability and quality of these fats for bees will perhaps explain why some flowers are so much more popular than others. Furthermore, in order to ensure that the flowers that are best for bees are available to them, we need to know exactly what bees need. Consequently, I also study the nutritional needs of bumblebees. There are 24 species of bumblebee in the UK; we have the classic black-and-yellow-striped bumblebees but also ginger, red-tailed, black-winged and yellow-moustached species. Bumblebees are the largest bees in the UK and generalist foragers, which means they visit a wide range of different flowers when feeding. This doesn't mean they don't have favourites, though (something I think we can all identify with). For instance, lots of bumblebees are very fond of legumes, such as clover, and some are strongly associated with moorland areas which contain lots of heather. The UK is home to six cuckoo bumblebee species, which also raise interesting questions for nutrition. Like the bird of that name, they use other species to rear their young, though rather than sneaking in eggs they do this by supplanting the queen. Cuckoo bumblebees require their hosts to be common in the landscape in order to survive, so their presence is often a good indicator of healthy bee populations.

One of the reasons I study bumblebees is that in the UK, while some species have been doing well, others have undergone huge declines and are now confined to small areas or have been declared extinct. The causes for this are varied and also linked to wider spread insect declines. They include increased use of insecticides in agriculture, loss of certain plant communities such as unimproved grassland meadows, and increased prevalence of parasites and disease. In mainland Europe, declines in individual bee species have been linked to loss of their main pollen source and found to be more common in species with narrower preferences.

The documented loss of wildflower habitats and replacement with ever-increasing agricultural monocultures and urban areas raises questions about food availability for bees in a changing landscape. Urban areas often contain high densities of non-native but nutritionally rewarding plant species which can be grown to flower much earlier or later in the season. However, some horticultural varieties have been bred not to produce pollen or nectar, or they are treated with pesticides. In agricultural areas, the boom-bust cycle of flowering means there are periods of high availability of single species contrasted with periods of total absence of flowers. The boom periods often appear in mid-summer, which means that early spring and late

summer, when queen bees crucially need high food availability to found colonies or to stockpile energy reserves for the winter, are times of deficiency. Schemes exist to support the maintenance of sown wildflower strips, hedgerows and other uncropped areas. However, these interventions are rarely supported by all the available information on bee nutrition. As a result, there is room for improvement in how we support bees in such landscapes and ensure availability of high-quality food sources.

So, looking out of your window, how appetising do you think the space outside looks for bees? Could it be managed to provide a better range of flowers for bees, including those that flower early and late in the season? Even permitting some weed species and not mowing your lawn until later in the summer can help ensure a diverse and continuing supply of floral foods. Whatever space you have access to, I hope that by giving you a bee's-eye view of green spaces I will encourage you to try to make a difference to your local pollinators.

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Transforming the future of healthcare

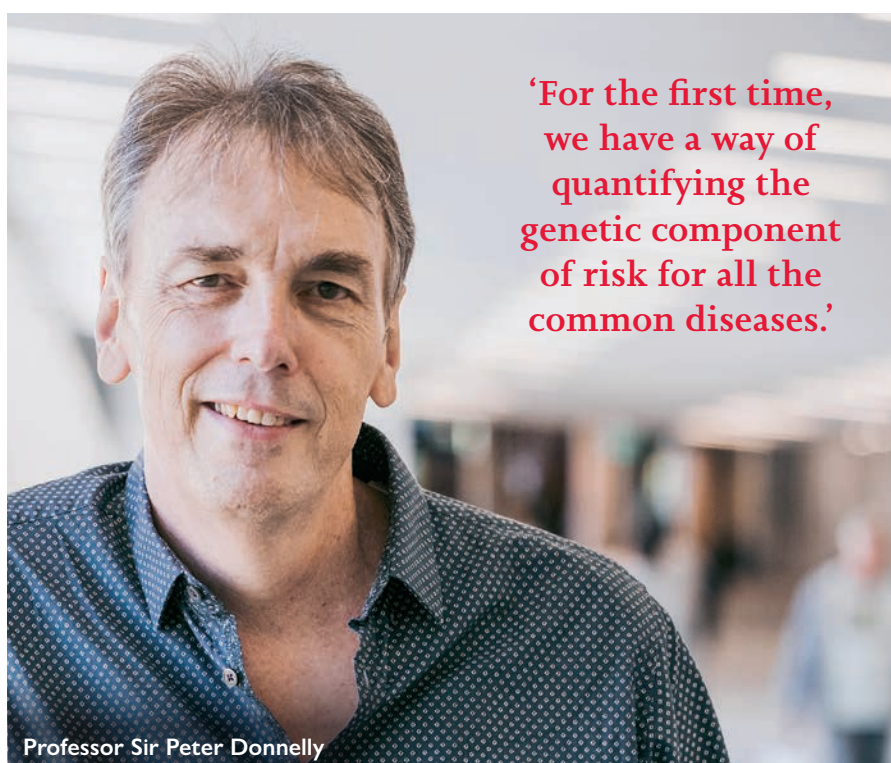
Professor Sir Peter Donnelly FRS, FMedSci (1980 and Honorary Fellow), co-founder and CEO of Genomics plc, and Emeritus Professor of Statistical Science at Oxford, speaks to Juba Nait Saada (2018) about his career

JNS: You studied at Balliol for your DPhil in Mathematics. What role has Balliol played in your life?

PD: Balliol has had a big impact on my life. When I was there as a graduate student, I was very involved in many aspects of College life. I played a lot of sport – rugby and cricket, and others, like rowing, I had never tried before – and I was involved in College societies, like the Arnold and Brackenbury. It is still the case that many of my closest friends are friends from my time at Balliol. I was thrilled to be made an Honorary Fellow of the College some years ago.

JNS: You were an academic for 40 years. What did you enjoy about it?

PD: I loved being an academic. I was extremely lucky to work with talented students, postdocs and colleagues, which was great scientifically, but also because many of them became good friends. It is a rare privilege to be able to do research. My research focus evolved quite substantially over my career, from my early work in fairly abstract mathematics, through statistics, to understanding evolution within populations and then to human genetics – understanding the genetic basis of human diseases. At the end of my academic career I was even running an experimental programme to understand some of the very detailed molecular biology in meiosis, the process which puts genetic information into eggs and sperm. Doing scientific research can be incredibly exciting, and I have loved the opportunity to learn new things.



Professor Sir Peter Donnelly

‘For the first time, we have a way of quantifying the genetic component of risk for all the common diseases.’

JNS: You were head of the Department of Statistics at the University of Oxford (1996–2001) and then Director of the Wellcome Trust Centre for Human Genetics (WTCHG) in Oxford (2007–2018). You then decided to found Genomics plc with three colleagues from Oxford. What were your motivations for starting a new journey in the private sector?

PD: I have been very fortunate to be at the centre of many of the major projects in human genetics over the last 15 years. Those projects led to an explosion of our knowledge of genetic

variants – changes in our DNA – which affect our likelihood of getting different human diseases. As an academic in that role, I would repeatedly say in lectures and write in papers and research grant applications that these discoveries would have an impact on healthcare and on patients. But it slowly dawned on me that they weren’t having much impact on patients, or on healthcare. On reflection you can see why, because the rewards system in the academic world is geared towards discoveries, papers, and grants rather than on changing practice. There are major challenges in actually doing something that makes a difference in healthcare.

‘My motivations for founding Genomics plc were to continue to be doing world-leading science while adding to that the capabilities that would translate that science into differences in healthcare and drug discovery.’

So my motivations for founding Genomics plc in 2014 were to continue to be doing world-leading science while adding to that the capabilities that would translate that science into differences in healthcare and drug discovery.

Having been an academic for 40 years or so, I now find myself in an unusual position: I’ve never worked in a company before and now I am running one. There is a huge amount for me to learn about how to do that, how to do it well, and how to bring together the different skillsets we need to generate the investment and to deliver the products so as to have an impact on healthcare.

JNS: The ‘academia vs. industry’ is a common dilemma faced by early career researchers and students. What would you say to those who are unsure about their career paths?

PD: I think things are evolving so that it is much less of a dichotomy than it was in the past, in a number of different ways. First, I think it will be more common for people to spend some parts of their career in the academic world and some in industry, and to move back and forth. Secondly, it’s absolutely the case that in a number of fields, including my own, some of the most exciting research happens in companies rather than in the academic world. From a student’s point of view, you’re not necessarily sacrificing exciting science if you choose a commercial path rather than an academic path.

The other thing I’d say is that the way research is done is quite different in the two environments. The academic world is all about doing public good, it’s about learning and discoveries, but the way research is conducted is very individual-focused. Principal investigators have a great deal of autonomy – they run their own research team, and compete with others for research grants and to publish first. Within those teams,

postdocs and students have to worry about their position in authorship lists. In contrast, in the commercial world, even though on some level the purpose of the work companies do is to increase value for shareholders, the way they do science is more collective, collaborative and team focused. Many researchers feel much more part of a team in a company than they did in the academic world. Some people prefer one culture, some prefer the other.

JNS: What are the problems you are now focusing on at Genomics plc?

PD: Sophisticated analyses of very large amounts of genetic data can be incredibly powerful in tackling some of the major challenges in healthcare. One of these challenges is drug discovery: currently more than 90% of potential new drugs fail when they’re taken into clinical trials. A major reason for that is that we do not understand human biology well enough to make the right choices of drug targets, i.e. the proteins that the drugs are trying to affect. Human genetic data gives us a whole new approach to that problem, and a whole new way of tackling it. One of the things that we do within Genomics plc is to use genetic data to find novel and powerful drug targets.

We also work on what is being called ‘genomic prevention’. We’ve known for many years that genetics is a key part of the story of susceptibility to all the common diseases and cancers. We now know that there are not one or two genes for heart disease, for example, but there are millions of different places in our DNA that can affect the risk for heart disease. For the first time, we have a way of quantifying the genetic component of risk for all the common diseases. That means that we are able to identify people who are at high risk for many of these diseases and currently invisible to health systems. We can use algorithms to identify the right people to be put into existing

screening, prevention or treatment programmes. That allows us to move healthcare upstream so that we focus on preventing disease before it even happens or catching it very early. This development is beneficial not only to patients but also to healthcare systems, by making them more sustainable in the long term. Ultimately, it can save millions of lives globally.

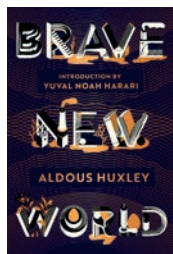
JNS: The field of genetics is rapidly growing because of advances in sequencing technologies and collection of large-scale datasets, many of which you have contributed to. In contrast, the future seems uncertain: we are still in the midst of the Covid-19 pandemic and there is the threat posed to health by the climate crisis. What role do you expect genetics to play in public health challenges in the future? Do you believe in the growing field of personal genetics?

PD: I think extensive genetic data will be available in healthcare systems about individual patients in the next 15 or 20 years. That offers a massive opportunity for us to use that information in clever ways in healthcare. One of them is the new approach to the prevention of disease that I mentioned earlier, but there will be many other individual decisions that doctors need to make about patients where genetic information will be helpful. Is this patient likely to respond to this drug? If there is a choice between surgery or another approach, is there something about the individual patient that would make one more likely to be successful than the other? I think using genetic data in such ways will be more routine in healthcare, with enormously important consequences. What we’re trying to do at Genomics plc is to drive those developments. I am convinced it will happen, globally, and it will save tens of millions of lives over the coming decades.

Bookshelf

Aldous Huxley (1913)

Brave New World: 90th anniversary edition
Vintage Classics, 2022



The naming of Block B1 at the Master's Field after Aldous Huxley coincides with the 90th anniversary of the first publication of his most well-known novel, which

prophesied a society that expects maximum pleasure and accepts complete surveillance – no matter what the cost. To mark the anniversary Vintage have published this sumptuous gift edition, with an introduction by Yuval Noah Harari.

'A masterpiece of speculation ... As vibrant, fresh, and somehow shocking as it was when I first read it.' – Margaret Atwood

Richard Dawkins (1959 and Honorary Fellow)

Books Do Furnish a Life: An Electrifying Celebration of Science
Bantam Press, 2021



In this collection of his forewords, afterwords, introductions and reviews, 'Thunderously gifted science writer' (Sunday Times) Richard Dawkins considers

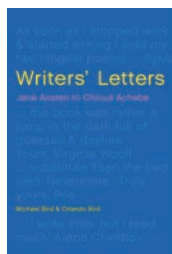
the work and ideas of some of the leading thinkers of our age – amongst them Carl Sagan, Lawrence Krauss, Jacob Bronowski, Lewis Wolpert, and Stephen Pinker – on themes that include nature, humanity, and faith.

'With his treatment of everything from evolutionary psychology to the temptations of supposedly sophisticated theology, from African Eve to the beauty of the Galápagos, from the virtual reality software in our brains to postmodern baloney and the inspiration to be found in great science fiction, Dawkins excites, surprises and nourishes the mind.' – *Arco Magazine*

Orlando Bird (2008) with Michael Bird

Writers' Letters: Jane Austen to Chinua Achebe

Frances Lincoln, 2021

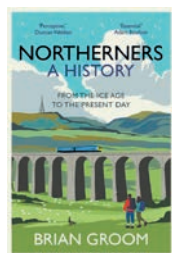


An illustrated compendium of letters written by great novelists, poets, playwrights and essayists, from Cervantes to the present day. Letters from

authors including Mark Twain, Oscar Wilde, Jane Austen, Virginia Woolf, Jack Kerouac and Chinua Achebe are reproduced, together with a transcript of the correspondence and background details that provide their context. Arranged thematically, the letters provide personal and fascinating insights into the writers' daily lives, relationships and work.

Brian Groom (1973)

Northerners: A History, From the Ice Age to the Present Day
Harper North, 2022



In his history of northern England – the first to be published for more than 30 years – Brian Groom describes the events that created the region, including migration, invasions

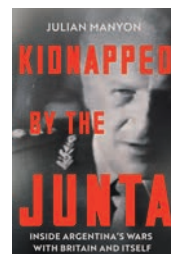
and battles; the inhabitants who have played a part in its making, from Neanderthals and Roman emperors to Afro-Caribbeans and South Asians; and how northerners artists, inventors, comedians, sportsmen and many others have shaped Britain and the world in unexpected ways. And he looks at what northernness means today and the crucial role the north can play in Britain's future.

'Few people are better placed to write the story of northerners than Brian Groom, one of journalism's most astute observers of the state of Britain.' – *The Guardian*

Julian Manyon (1968)

Kidnapped by the Junta: Inside Argentina's Wars with Britain and Itself

Icon, 2022

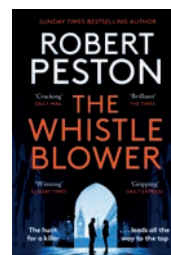


In 1982 while reporting on the Falkland War in Buenos Aires for Thames Television, Julian Manyon and his TV crew were kidnapped and put through a mock

execution by the secret police. Less than eight hours later they were invited to film a world-exclusive interview with an apologetic President Galtieri, head of the Argentine Junta. In recently released CIA documents Manyon discovered that his kidnapper was a key figure in the Junta's bloody struggle against left-wing opposition with a record of torture and murder, and other details of the wider picture; and these he draws on here to provide a new insight into Argentina's 'Dirty War' and its effect on the Falklands conflict.

Robert Peston (1979)

The Whistleblower
Zaffre, 2021



It's 1997. In the run-up to an election, journalist and respected commentator on the sport of power politics Gil Peck watches from the sidelines. He thinks

he knows how things work. He thinks he knows the rules. But when Gil's sister Clare dies in an apparent hit-and-run, he begins to believe it was no accident. Clare knew some of the most sensitive secrets in government – could one of them have got her killed? As election day approaches, Gil follows the story into the dark web of interests that link politics, finance and the media and realises how wrong he has been.

'Politically insightful, scary, satirical, beautifully paced and has a great cast of characters.' – *The Times*

Rupert Read (1984)**Parents for a Future: How Loving Our Children Can Prevent Climate Collapse**

UEA Publishing Project, 2021



How can we tackle the great challenge of our time, climate crisis? We need to become parents of the future, argues Rupert Read (Associate Professor in Philosophy at

the University of East Anglia): only if we take completely seriously what it really means to be good parents to our children will we be motivated to take care of the future. Calling for radical action, he presents his core proposals: Citizens' Assemblies, constitutionally empowered to take the necessary decisions, Guardians for Future Generations, sitting above parliament, and adopting the Precautionary Principle, a philosophical, ethical and legal framework that would inform those bodies' decision-making.

Carmen Bugar (2000)**Time Being**

Shearsman Books, 2022



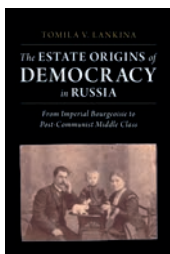
In her fifth poetry collection – dedicated to Judith and Carl Schmidt (Emeritus Fellow) – Carmen Bugar reflects on the impact of the pandemic through the lens of family

life, observing daily concerns and anxieties as well as wonder in nature, her children and the resilience of her own spirit.

'Her lyric voice and moral imagination in these poems gathers its energy from the urgency of daily concerns and anxieties, as well as the need to witness ... At the heart of this compelling collection is assurance and the poet's good instruction to herself "to feel the real, to protect myself against the imagined": advice each of us should heed." ' – *The Irish Times*

Tomila Lankina (1998)**The Estate Origins of Democracy in Russia: From Imperial Bourgeoisie to Post-Communist Middle Class**

Cambridge University Press, 2021

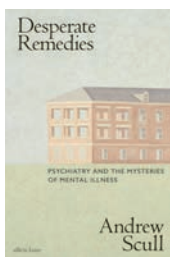


Challenging the idea of communism as a 'great leveller', this book debunks Marxism-inspired accounts of its equalitarian consequences.

In the first study systematically to link the genesis of the 'bourgeoisie-cum-middle class' – Imperial, Soviet, and post-communist – to Tzarist estate institutions which distinguished between nobility, clergy, the urban merchants and meshchane, and peasants, Tomila Lankina (Professor of International Relations at LSE) demonstrates how the pre-communist bourgeoisie survived and adapted in Soviet Russia. Under both Tzarism and communism, the estate system engendered an educated, autonomous bourgeoisie and professional class, along with an oppositional public sphere, and persistent social cleavages that continue to plague democratic consensus. This book also shows how the middle class, conventionally bracketed under one generic umbrella, is often two-pronged in nature – one originating among the educated estates of feudal orders, and the other fabricated as part of state-induced modernisation.

Andrew Scull (1966)**Desperate Remedies: Psychiatry's Turbulent Quest to Cure Mental Illness**

Allen Lane, 2022



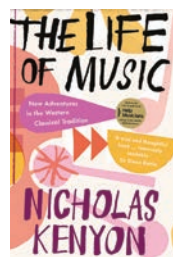
Andrew Scull (Distinguished Professor of Sociology, Emeritus, at the University of California, San Diego) traces the history of psychiatry's attempts to understand and mitigate mental illness, from the age of the asylum and surgical and chemical interventions, through the rise and fall of Freud and the talking cure,

to our own time of drug companies and antidepressants. Illustrating the assumptions and theory behind the therapy, and arguing that through it all, the often vain and rash attempts to come to terms with the enigma of mental disorder have frequently resulted in dire consequences for the patient, he illuminates psychiatry's and society's battle with mental illness.

'Authoritative and sobering ... Lays out the obstacles that all practitioners in the field have faced as successive methods of treatments – Freudian analysis, talk therapy, and medication – have come into vogue and then retreated ... Because Scull's crisis-to-crisis history is so impeccable, it's also deeply troubling.' – Kirkus

Nicholas Kenyon (1969 and Honorary Fellow)**The Life of Music: New Adventures in the Western Classical Tradition**

Yale University Press, 2021



As a writer, broadcaster, music critic, concert presenter and former director of the BBC Proms, Sir Nicholas Kenyon has long championed a wide range of composers

and performers. Now at a time when we think about music in fresh ways he revisits the stories that make up the classical tradition, foregrounds those which are too often overlooked, and highlights the achievements of the women and men, amateurs and professionals, who bring music to life. From pianist Myra Hess's performance in London during the Blitz to John Adams' composition of a piece for mourners after New York's 9/11 attacks, he shows how music has the power to bring us together and explores its enduring appeal.

'A typically wise and thoughtful book, which manages to combine a wealth of unexpected information with an immensely readable style – it should grab anybody, whatever their level of musical knowledge.' – Sir Simon Rattle

The taming of an 18th-century virus

Lucy Ward (1987) describes the strange experience of writing about a past pandemic during a current one



Top: Engraving of Thomas Dimsdale by Carl Ludwig Christinecke after his own painting, 1769, presented to Thomas by Catherine. Dimsdale family collection.

Above: Portrait of Catherine II by Pietro Rotari. Again, presented to Thomas by Catherine. Dimsdale family collection.

Both reproduced by kind permission of the Dimsdale family.

When I pitched a non-fiction account of the inoculation of Catherine the Great of Russia against smallpox by a Quaker physician from Hertford, it never occurred to me that a book set in the 18th century would be overtaken by events. But by the time my book contract was signed in March 2020, a new and frightening disease called Covid-19 was spreading rapidly across the planet, and Britain was, belatedly, following many of its European neighbours into lockdown. The doors of archives and libraries clanged shut, and my research switched abruptly online, to the – thankfully – digitised collections of the Wellcome Trust, the Royal Society and Imperial Russian Historical Society. Delving into 250-year-old medical treatises, state papers, family correspondence and newspaper reports, heading out only for my allotted hour of exercise, I unearthed accounts of illness, death and the scientific and political battle to tame a (far deadlier) virus that felt hauntingly familiar. My planned historical narrative sprang dramatically to life.

Catherine II's decision in 1768 to have herself and her son, Paul, inoculated against smallpox, and then to use her own example to promote the contentious procedure throughout her empire for decades afterwards, is a story hidden in plain sight. In the best biographies, such as Simon Dixon's excellent *Catherine the Great*, the dramatic events are briefly covered, but the Empress's extraordinary life and multi-faceted reformist reign leave little space for detail. Elsewhere, the reality of her political achievements is too often overshadowed by invented sexual slurs, still going strong after over two centuries (try typing her name

into Google). Yet, in choosing to put her own life on the line in the name of reason and science, she was unique among leaders of either sex.

Inoculation, the forerunner of vaccination, involved deliberately infecting a healthy individual with a minute dose of live smallpox virus in order to induce a mild version of the disease, conferring lifelong immunity. This 'fighting fire with fire' technique, long practised in parts of Asia and Africa, had reached Europe from Turkey early in the 18th century, when it was promoted in Britain by another visionary woman who recognised its transformative potential: the aristocrat-influencer Lady Mary Wortley Montagu.

'Catherine never wavered, pointing out – in true Chris Whitty style – that the data on comparative risk was unequivocal.'

While natural smallpox, sweeping terrifyingly across Europe in epidemic waves, killed roughly in one in five of those afflicted (and few of any social level escaped its clutches), inoculation – by the time of Catherine's treatment – was exceptionally reliable in the hands of experienced practitioners.

Turning to England, the global centre of excellence in the development of the technology, in search of an expert, Catherine recruited Thomas Dimsdale, a well-established

56-year-old physician and author of a new and best-selling treatise, *The Present Method of Inoculating for the Smallpox*. Rather reluctantly, and sworn to secrecy about the nature of his mission, the home-loving doctor travelled some 1,700 miles to St Petersburg, where he found the Empress highly informed about inoculation and eager to undergo the procedure ('I even long for the happy day,' she assured him). Even when his trials on young cadets went badly, Catherine never wavered, pointing out – in true Chris Whitty style – that the data on comparative risk was unequivocal. On the evening of 12 October, she summoned the anxious doctor, who made his way via a private back staircase to her room in the Winter Palace. With a mother of pearl-handled lancet, he inoculated her once in each arm, and both their lives changed for ever.

Thanks to the generosity of the Dimsdale family, in *The Empress and the English Doctor* I was able to draw on Thomas's private medical notes and letters, providing a detailed insight into the Empress's symptoms and recovery as she overcame inoculated smallpox. His reports, together with accounts in Russian archives, also reveal her determined efforts to use her own safe recovery to calm widespread superstition and introduce the technology across Russia. Catherine amplified her inoculation (and her personal courage) through poetry, an allegorical ballet, Orthodox church ceremonies, fireworks, cannon fire and even an annual public holiday. The photo-ops capturing the Covid vaccinations of today's world leaders and social media influencers seem tame by comparison.

The significance of pandemic leadership was only one of many resonant themes to emerge from my locked-down research. While my book focuses on the meeting and lifelong close connection of the Empress and her physician, it also examines the impact of smallpox epidemics on daily life in Britain. The sorrow of families losing loved ones rang down the years, as did the economic pressures placed on communities by measures taken to contain the disease. As my own children Zoom-ed their way reluctantly towards non-existent exams, I read newspaper



'I unearthed accounts of illness, death and the scientific and political battle to tame a virus that felt hauntingly familiar.'

reports of the closures of 18th-century schools, courts and markets in my own home county of Essex. Smallpox sufferers fought the devastating virus in isolated pest houses, while parishes fretted at the high cost of nursing – and burying – them.

As the Covid pandemic has progressed, and vaccines have emerged to blunt its force, the history of inoculation has come under the spotlight. Too often, though, Edward Jenner is the sole focus, when in reality his historic scientific leap – decisively proving in 1796 that the mild cowpox virus could induce immunity to smallpox – sprang from the little-recognised investigations of Thomas Dimsdale and his fellow inoculators in Britain and beyond. The treasure trove of contemporary scientific documents I pored over online revealed the shift in understanding over the preceding century from a humoral model of medicine, in which smallpox was characterised as an 'innate seed' lurking within every individual whose poison the body sought to expel, to a clear recognition that the virus

spread by contagion, mainly via close contact between people. That key discovery opened up an extraordinary possibility: the complete eradication of smallpox. Before Jenner had published his landmark *Inquiry*, a doctor in Chester had sketched out a detailed plan for eliminating the virus from Britain, featuring inoculation and isolation (to prevent cross infection from inoculated patients) enforced by a version of track and trace and underpinned by fines and furlough.

Reading my way through such documents, it sometimes felt as if time was collapsing; and there was more. Supporters of inoculation, from country doctors to such luminaries as Voltaire, regarded the procedure as the only rational response when confronted with the risk of the natural disease. Their arguments persuaded many, but never overcame the resistance of others. The earliest reference I found to the term 'anti-inoculators' was in 1722, almost immediately after the practice was introduced in England; the successors of those critics make remarkably familiar arguments today.

Writing about inoculation with viruses and vaccination perpetually in the news bulletins allowed me to relate unexpectedly closely to the experiences of our forebears as they battled with disease, as I hope will readers of the book. Dame Kate Bingham, Chair of the UK Vaccine Taskforce, generously described it as 'A fascinating and beautifully told story about courageous vaccination pioneers ... with remarkable parallels to the Covid pandemic'. But, in truth, the fundamental themes – leadership, persuasion, the tension between human reason and our deepest fears of what may harm us – are always present. From Catherine II's uncompromising declaration to her hesitant English doctor that 'My life is my own' to the sorrow of parents unable to save a dying child, the emotions of those who went before us are with us still.

***The Empress and the English Doctor* by Lucy Ward is published by Oneworld. oneworld-publications.com/the-empress-and-the-english-doctor-hb.html**

What happens after freedom?

Eleanor Shearer (2014) tells Floreat Domus about her first novel

Please tell us what your novel is about.

River Sing Me Home is set in 1834, just after the abolition of slavery. It tells the story of Rachel, a woman who travels across the Caribbean to find the children sold away from her.

What gave you the idea for the story?

I was inspired by the formerly enslaved women who tried to put their families back together again after slavery ended. I first learnt about them in an exhibition that I went to when I was 16, which really stuck with me. But it took me a while to work up the courage to write this book, because I thought I was too young to write about a protagonist in her 40s and I needed more time to do research. In the end, the pandemic happened and I thought: I'll never have more free time than I do now, so why not just try to write it and see what happens?

The exhibition was called *Making Freedom*, and I think that title really expresses what's at the heart of my novel. It's about what it means to be free and what it means to take freedom into your own hands. In the UK, we learn the abolition story through the eyes of white people like William Wilberforce, as if freedom was something they gave to people in the Caribbean. That story doesn't do justice to the agency of enslaved people.

How did your time at Balliol shape you on your journey to becoming a published author?

I studied History and Politics, and was lucky enough to be taught by Dan Butt (Robert Maxwell Fellow and Tutor in Political Theory). We shared an interest in historical injustice, and it was in



Eleanor Shearer

'I was inspired by the formerly enslaved women who tried to put their families back together again after slavery ended.'

tutorials with him that the idea of studying the legacy of Caribbean slavery in more detail started to take shape.

I then did my Master's degree in political theory, focusing on how slavery is remembered in the Caribbean and the case for reparations. I travelled to the Caribbean, to St Lucia and Barbados where I have family, for fieldwork. My time on the islands interviewing people informed so much of the historical background to the book.

What drew you to the subject?

My grandparents on my mother's side came to the UK from the Caribbean as part of the Windrush generation, so the connection is very personal.

Slavery obviously casts a long shadow over Caribbean history, but I find art about slavery itself – the brutality of it – very challenging, even traumatic. I think it is very necessary, but often the audience is white people, who might need to be reminded of this great injustice. People with Caribbean heritage don't need reminding of the horrors of slavery. What is more interesting to me is what comes next: what happens after freedom? *River Sing Me Home* starts as slavery has ended, and the opening scene sees Rachel just after she has left her plantation.

Where does the title of your novel come from?

My editor at Headline and I agreed that the title should reflect the Caribbean landscape of the book, as well as convey something about its emotional core. We came up with *River Sing Me Home*, which gives you that sense of setting and of the emotional themes of the book – not only home, but also music and singing, which feature a lot in the novel as a way of connecting to a half-forgotten past and cultures that were almost lost when people were taken from Africa.

What next? Will you be giving up your day job?

I work as a researcher at a think tank and have been so fortunate that my employer has been supportive of this book. From next year, I will be going part-time and keeping a foot in both worlds for now as I write my second novel, set during the Haitian Revolution.

***River Sing Me Home* will be published by Headline in February 2023.**

Geoff Evatt

Rachel and volunteers
planting a hedgerow.

‘Our motivation for taking on the land was to make it better for nature through either woodland planting or “rewilding”.’

Restoring nature’s balance

Geoffrey William Evatt (1999) describes how he and Rachel Evatt (2000) have established a nature-led farm

My wife, Rachel, and I are outdoorsy types who firmly believe in taking personal, physical responsibility for the environment. We have always been conscious that, wherever one is, we are all surrounded by farmed land and farmed seas. Yet the tap-tap-tap of our keyboards often faded out this hugely consequential fact – consequential in that the drive to ever more intensive farming has side effects that, if left

unchecked, will destroy the system that is meant to serve us all. But with Rachel having worked the keyboards of the tech sector for some years, we reached a point when we could step back from our computers and place a portion of environmental matters into our own hands.

So in late 2019 we purchased an area of upland dairy farm in the High Peak, Derbyshire. Next door to our home,

the land is some 125 acres of nitrogen-green grassy hillside within the mildly mountainous area of the Peak District, with Manchester’s skyscrapers peeping up from the valley lows.

Up to that point our experience of land management had been amateur, through running a nature-rich wildflower meadow adjacent to our house (and before that, helping with the water supply and scything at

‘We spend a lot of time engaging with other like-minded landowners and organisations, hoping to enable more areas of land to become more beneficial to biodiversity and local communities.’

the Chalet des Anglais). But now the land management required was on a wholly different scale, and it would be constrained by economics.

Our motivation for taking on the land was to make it better for nature through either woodland planting or ‘rewilding’. Lovely. Yet what that meant in reality was less clear cut. ‘Rewilding’ – the land-management buzzword of our times – aims to restore ecosystems, rather than the single-species-saving approach that has dominated conservation in recent decades. The carrot of rewilding is that it can help remedy some of the planet’s problems at relatively little cost; the stick is that farmers currently get paid less and

less money for doing more and more intensive farm work. Sadly, though, financial reward for rewilding does not yet exist in appropriate quantities. But it might, because we all need it to. It is in acknowledgement of this need that we established our economic model and Sunart Fields Limited was born.

While we were starting to make our plans, everyone, yes everyone, had gone and got themselves a lockdown puppy that needed walking ... Our land has over 4km of public footpaths across it. By any measure that is a lot, and it has a clear impact upon the place; that said, we really wanted to engage with locals and neighbours, to help the land become a fantastic place for nature, to the benefit of all. As we assessed this need for balance, we were approached by a company seeking to supply nature-friendly farms with trees and hedgerow plants, and the penny dropped: we could involve the local community by asking them to help us plant a serious amount of hedgerows along the otherwise-desolate paths. The hedgerows would be amazing for wildlife, they would keep the paths clearly marked, and if we made the paths wide enough (far wider than the stingy 1m legal requirement) we could use them as vehicle rides around the land, thus reducing our impact elsewhere. Amazingly, by speaking to walkers and explaining to them what we were doing, we recruited over 60 local people (from pretty much every demographic within the area), who came and created some 1.4km of dense hedgerows – a lasting positive legacy by everyone involved, with some excellent friendships made.

Alongside the hedgerow planting, we’ve been using pigs to help turn over some of the fields. Our pigs act as a mix between industrial rotovator and deli counter. Their snouts help break up the stranglehold of silage grass, into which we spread hay from our magnificent wildflower meadow in order to distribute desirable seeds. Then, after around a year of active service, we sell their meat locally – all forward sold within about 30 minutes of WhatsApping. Likewise, we have a small flock of sheep who help maintain the more interesting grasslands.

However, sadly it has become evident that the majority of the land is not in a condition to be returned to interesting grasslands through the use of animals. The soil has been treated with slurry and fertiliser over several decades and is in poor condition. That said, our newly planted hedgerows made the most of the conditions and are growing rapidly.

These experiments are leading us to turn most of the land into a mix of dense scrub and native woodland. This is pretty much what we originally wished to do, and it simultaneously acts as an intensive farm decommissioning programme. In so doing, we are now one of a handful of Natural England’s pilot studies in the government’s Biodiversity Net Gain scheme, which in theory should form the economic backbone of our business.

Other extremely enjoyable activities include a Forest School site which we hire to local schools and Girlguiding and Scout groups; wildlife tours with the naturalist and author Mark Cocker; selling foliage to local florists; and Christmas wreath workshops. The most unexpected piece of work we have done was a show garden at the RHS Tatton Park Flower Show. Our garden, called ‘Weed Thriller’, featured a drystone wall, a log pile and plenty of wild and sometimes controversial native plants



Sandra Nock

Wildflower meadow at Sunart Fields.



Geoff (left) and Rachel (right) with horticulturalist Sandra Nock (centre), holding their Gold Medal, trophy and score sheet (recording their 100% score) at RHS Tatton Park Flower Show.

‘We are now one of a handful of Natural England’s pilot studies in the government’s Biodiversity Net Gain scheme.’

from our land, all beautifully arranged, to demonstrate that wild plants (not just ‘wildflowers’) can be stunning additions to our tended places. We were the first ever people to exhibit the society-splitting ragwort at an RHS show and we assumed that we would be vilified by many. Instead, we were awarded an RHS Gold Medal, plus a trophy for the Best in Class. Weed Thriller suddenly hit the national press and TV, and somehow (briefly) united the political divide with praise from both the *Guardian* and the *Telegraph*. Well done that ragwort!


We have not completely said farewell to keyboards, for Rachel is now on the Board of Trustees for Rewilding Britain and I work part-time as an applied mathematician at the University of Manchester, specialising

in glaciology and meteorites. We also spend a lot of time engaging with other like-minded landowners and organisations, hoping to enable more areas of land to become more beneficial to biodiversity and local communities, whilst also advocating the need for secure long-term funding for the farmers who do the actual work.

After two years of running Sunart Fields in this manner, things appear

to be settling into a manageable rhythm. Much more planting and coppicing lies ahead, but the use of additional animals (plus the associated machinery and land-tiedness) does not. Best of all is that even in a short space of time we have seen significant growth in the land’s biodiversity, in the butterflies, birds, fungi and flora. Even a polecat has moved in. Of course, we’ll be long dead by the time the land reaches prime condition, but that is not the point: what is important now is that we are helping it to get there.

For more information visit www.sunartfields.com or follow Geoff and Rachel on Instagram @sunartfields.



The Menorah being carried into Rome: Arch of Titus (Rome), Jerusalem treasure relief (copy) at Museu d'Història dels Jueus, Girona).

Treasure hunting

Sir Richard Heygate (1958) describes his search for the secrets of the Templars

I don't think that I was ever cut out to be a treasure hunter – far less a modern Lord Cadogan, who discovered Tutankhamun's tomb – but I have never been able to resist an adventure. After this one, my son Freddie (who took part in much of it) said that he will describe me to his grandchildren as the only dad who took his boy searching for the Holy Grail.

The opportunity presented itself when I was writing the Jura chapter of my book on the changing UK countryside. Jura is a small island off the west coast of Scotland with a population of under 200 and an

'My son said that he will describe me to his grandchildren as the only dad who took his boy searching for the Holy Grail.'

excellent distillery. It also has a churchyard with seven fully attested Knights Templar tombs. The most interesting was carved with a Templar

sword, an ancient sailing boat, a chest with five bands and some sheep shears.

I did some research and discovered that the Templars had not just been protectors of Crusade pilgrims but had built an immensely powerful organisation in the 11th, 12th and 13th centuries, with five protected city centres such as the Vatican, from which they ran the world's first commercial bank and maintained monopolies in industries like wool and salt, as well as a large fleet (their flag was the Jolly Roger). Their mistake was to lend huge sums of money to kings and the Pope, who eventually reneged on their debts.

‘If the Templars did take these treasures to Jura, where would they be hidden now?’

They invaded the Templar centres and burnt many to death, including the Grand Master (who cursed both the French king and the Pope and predicted accurately that they would both follow him with a year). Yet, the story goes, the Templars missed the money and a week before the attack on Paris 18 mysterious ships sailed to unknown destinations, carrying huge amounts of gold. There are also hints that amongst the treasure were sacred Jewish objects.

For example, ‘Jacques de Morlay, the last Grand Master, on the night of his execution, sent the Count of Beaujeu to the crypt of the Temple church in Paris to recover the Jerusalem treasure, which included the seven branched candelabra (The Menorah), the crown of the kingdom of Jerusalem and a sacred shroud’, presumably the Veil of the Temple, all mentioned by contemporary historian Josephus as having been stolen by the Romans.

If the Templars did take these treasures to Jura, as the carving on the stone suggests, where would they be hidden now? A writer friend of mine, Phil Rickman, whose fictional heroine is the exorcist to Hereford Cathedral, had an idea. ‘Try Garway Church,’ he said. ‘It has a powerful Templar connection, as it was visited by de Morlay before his death, but be careful. The Templars were supposed to protect their hidden treasure with curses.’

Garway Church in Herefordshire is indeed a Templar building, although the original round nave has been transformed by the Knights Hospitaller (the Templars’ successors) into a dove-cote in a nearby field with 666 bird holes (oh dear!). Nerve-racking stuff, but Phil handed me a prayer book, well thumbed at the appropriate pages. It proved useful during our hunt, when we did indeed find one of the Templar treasure boxes still kept in the church itself, carbon dated correctly to the early 14th century. Alas nothing inside.

My next advice came from an extraordinary character, Professor Roland Rotherham, sometime Cavalry Officer, member of the Queen’s Household, Fellow of the College

of Arms, and maker of the meanest martini on the Seven Seas. ‘The Doctor’, as he is known to his friends, produced a comment about the Templars, which was cryptic to say the least.

‘Don’t search for their treasure: understand their “sacred geometry” and you’ll understand their secrets,’ he said. But what on earth was sacred geometry? I discovered that it is geometry that is sacred to the observer or discoverer. The example is given of Sir Christopher Wren, who used mathematical dimensions believed to have come from the original Temple in Jerusalem (he was one of the earliest Freemasons) in the design of St Paul’s and other churches he built after the great fire of London in order to give them greater spirituality. I know quite a bit about this arcane area from my *Book of English Magic* (John Murray, 2009), which has now passed 50,000 sales worldwide.

I began a new search in the Jerusalem temple, from which the treasures were first stolen; then to Rome, where the thieving general Titus lodged them in the Temple of Peace. From here, they were stolen along with every valuable object in the city by a Gothic mercenary in 410, and hidden under a riverbed in southern Italy – a story which attracted Reichsmarshal Himmler (a noted occultist) and prompted the movie *Raiders of the Lost Ark* – but nothing has ever been found.

My experience with the Templars now focused my attention on other treasures stolen from Rome by the Goths: in particular, the earliest Christian silver. One historical source quotes the following example: ‘A 2,025lb silver Fastigium (a sort of canopy) of hammered burnished silver with a vault of the finest gold.’ My research also suggests that there are others which symbolise the Last Supper and the Holy Grail itself. I am still on the trail – hence my son’s comments.

By now, I am sure you think I am completely crazy, but a four-part documentary is planned for next year. Then you can make up your mind.



Templar treasure box at Garway Church, Herefordshire.



Carved Knights Templar tomb on the island of Jura.

Raphael at the National Gallery

Henry Tann (2017, DPhil History) interviews Professor Tom Henry (1983) and Professor David Ekserdjian (Christie's Junior Research Fellow 1983–1986), co-curators of a new exhibition

Was Raphael secretly at Balliol?

This was the most unexpected question to emerge from my two telephone conversations with Professors Tom Henry and David Ekserdjian, who are joint curators of the Raphael exhibition at the National Gallery opening in London in April 2022. The Italian painter and draughtsman Raphael Sanzio da Urbino, one of the greatest artists who ever lived, died in April 1520 and this exhibition had been planned to mark the 500th anniversary of his death before it was delayed for two years by the pandemic.

The suggestion that Raphael was at Balliol is every bit as preposterous as the notion that Dante went to Oxford, as satirised in Max Beerbohm's cartoon of the towering poet being challenged by a Proctor to state his name and college. Even so, the extent to which Raphael was able artfully to conceal the effort that went into his work offers grounds for claiming Balliol as his spiritual home.

For Tom Henry, among other qualities, Raphael is distinguished by his *sprezzatura*, the 16th-century Italian virtue of studied nonchalance 'that hides art', which Raphael's friend the writer and diplomat Baldassare Castiglione advised aspiring courtiers to follow in all things. *Sprezzatura* might equally be rendered in English by using the description by Prime Minister Herbert Asquith (Balliol 1870) of that 'tranquil consciousness of effortless superiority' which it was claimed unites Balliol students. Raphael was also known among his contemporaries for his generosity, commanding the respect of both his patrons and of other artists.

David and Tom may have had the chance to observe and practise such *sprezzatura* at first hand when they were at Balliol. David was Tom's tutor at Balliol in 1983, having been offered the chance to teach by Maurice Keen (Fellow and Tutor in Modern History 1961–2000). Tom remembers the exciting atmosphere of history at Balliol at that time and recalls that his tutorials with David focused on 15th-century art, though not on Raphael directly. Perhaps Maurice Keen himself would have encouraged us to trace the roots of *sprezzatura* in the medieval ideals and norms of conduct which he studies in his seminal book *Chivalry*, published in 1984, in which he notes that Castiglione's ideal Renaissance courtier may have changed his clothes but that his heart remained true to older values.

Just as it should for Balliol students, superiority for Raphael depended on foundations of hard work. David encourages those of us who find Raphael's paintings to be overwhelmingly perfect to approach them through his drawings, where this hard work can more readily be seen. To this end in their exhibition Raphael's Alba Madonna is shown together with his drawn preparatory study, on loan from the Palais des Beaux Arts in Lille.

What is there left to say about Raphael in 2022?

Raphael has not escaped attention in recent exhibitions. In 2020 the Scuderie del Quirinale held a major Raphael exhibition in Rome. For a single week that February, the tapestries designed by Raphael returned to their intended

place in the Vatican's Sistine Chapel. In 2017, the Ashmolean exhibited 120 of Raphael's drawings. Tom himself co-curated the National Gallery's 2004 exhibition on Raphael, *From Urbino to Rome*, as well as the *Late Raphael* exhibition at the Louvre in Paris and the Prado in Madrid in 2012. As it turned out, this question was something that David and Tom asked each other at the outset of their curation.

While there are one or two new discoveries in the exhibition, including a drawing of the Holy Family with St John the Baptist that was only identified as a Raphael in 2019, for David the real point of the exhibition is to give visitors the chance to experience the exhibits, new and familiar, at first hand.

Raphael was an extraordinary painter and draughtsman; yet he also worked across a range of different disciplines, as a designer, architect, archaeologist and even a poet. The comparison between his works in these different areas is a novelty afforded by the range of works gathered in the National Gallery's exhibition, as Tom is keen to point out. Two bronze roundels designed by Raphael for the Roman banker Agostino Chigi that have travelled to London for the exhibition are testament to the breadth of Raphael's art.

Raphael brought this wide expertise to bear in innovative ways. For example, he used a printing press to transfer red chalk counterproofs of his design studies for the Sistine Chapel tapestries. He would have been familiar with this kind of technology from his work with the printer and engraver Marcantonio Raimondi. One of these counterproofs is not the only instance of copy-making in the exhibition: a precise replica of

Raphael, *The Alba Madonna*, c.1510

Andrew W. Mellon Collection, courtesy
National Gallery of Art, Washington



a cartoon for one of the Sistine Chapel tapestries is also on display. In a famous essay of 1935 Walter Benjamin explored the effects of the mechanical reproduction of works of art on our perceptions of art and relationships with it. This exhibition seems to offer grounds for productive comparisons between the copying entailed by designing works of art in Renaissance Italy and the copying today that allows works which cannot travel safely to be present in international exhibitions.

What is Raphael's reputation today?

David asks us to remember that timing is central to considering Raphael's reputation today. For some, it still lies in the shadow of Michelangelo, whose fame as an architect, sculptor

and poet surpassed Raphael's. Yet if Raphael's design for St Peter's had been built, we might think of him in a very different light today. And Raphael showed his *sprezzatura* not only in his painting but also in his capacity as a designer and leader of artistic projects, as can be seen in his decoration of the Vatican Stanze. Moreover, Raphael is an inspiring example of someone's art improving over the course of their life. Had Raphael died at the age of 21, before he reached Florence, and not at 37, he would have been remembered as a fascinating artist but surely not as the one of the greatest artists who ever lived.

When Raphael and his patron, the banker Agostino Chigi, died within four days of each other, their contemporary Paolo Maffei wrote a letter reporting news of their funerals. Movingly, he described the 100 torches carried by the artists who escorted Raphael's body to the Pantheon in Rome where he would be buried. For Tom, it is this detail which captures the esteem in which he was held and which has remained undimmed ever since.

Having had the pleasure of talking to Tom and David about Raphael and Balliol, I look forward to visiting the exhibition, which is at the National Gallery until 31 July 2022.

Tom Henry is Professor of History of Art (Emeritus) at the University of Kent. David Ekserdjian is Professor of History of Art and Film at the University of Leicester.

Global Balliol

Some of those alumni overseas who are involved in environmental issues explain their work and share their views



Professor Tim Weiskel (1969)

Social anthropologist, historian and student of global agriculture, USA



‘We have created the weblog Transition-Studies.Net to expand understanding of the depth of the interlocking crises we now face as a human community.’

As human beings we live within a planetary ecosystem that we did not create, cannot control and must not destroy. Moreover, it seems that Earth is the only life-supporting planet in the known universe. This is a sobering fact about the precariousness of our place in space.

Yet, even more disturbing is the fact that in spite of all we now know about our vulnerable circumstance and despite our very best intentions, the social, economic and political institutions of our contemporary world are committed to operate – in their ‘default mode’ – so as to destroy the prospects for our future survival within the constraints of Earth’s ecosystem.

The institutions of which we are so proud and like to think we can control have in reality taken control of our behaviour as a species. This is particularly troubling because these institutions are founded in law and in practice upon the principle of promoting perpetual growth and continued human expansion.

The trouble is – as ecologists have pointed out long ago – that this growth will not persist for any species in a finite ecosystem. It is a basic law of biological systems that no organism within them can grow without limit without destroying the system itself.

Starkly put, then, the question is simply this: can humans survive the anthropocene? Can we repurpose with sufficient speed our institutions so as to assure human continuity, rather than accelerate our demise? If we fail to redirect them away from their default modes of perpetual growth no amount of technological wizardry will spare us from the system-wide collapse towards which our global agriculture is now headed.

At Balliol I completed two degrees – one in Social Anthropology and the other in Modern History, concentrating upon European colonialism in Africa. After teaching history and anthropology at Yale and Harvard, I was granted an extended Luce Research Fellowship at Harvard

Divinity School to examine environmental ethics and public policy. There I concentrated upon the ecology, ethics and trajectory of modern, petro-intensive agriculture.

Following a further year as part of a research team at the Rockefeller Foundation, I returned to Harvard to found and direct the Harvard Seminar on Environmental Values (HSEV) – the first university-wide inter-faculty initiative designed to expand awareness of environmental ethics at Harvard.

This cumulative work underscored the urgent need for our civilisation to limit its growth and focus attention instead upon engineering a transition towards sustainability. The colonial legacy of ‘growth economics’ combined with a tragic and pervasive public misunderstanding of the petro-intensive ‘magic’ of the ‘green revolution’ has meant that modern cultures all over the world are on a collision course with Earth’s finite ecosystem. These interconnected crises are accelerating as the global food system is becoming ever-more dependent upon fossil fuel combustion, while recurrent pandemics impact the world’s poorest agricultural populations with increasing severity, and extreme weather and changes in the climate stress food production and global supply chains beyond the breaking point.

As a vehicle to foster global public awareness, we have created the weblog Transition-Studies.Net to expand understanding of the depth of the interlocking crises we now face as a human community. Through this weblog and links to other internet channels that are both interdisciplinary in character and international in scope we have sought to create new means of communicating around the world to address the collective human task of devising a just transition towards global sustainability.

For more detail and links read ‘Balliol Notes’ at <https://wp.me/2PiDSG-uZr>.

Professor Daniel Esty (1981)

Hillhouse Professor of Environmental Law and Policy, Yale School of the Environment and Yale Law School, USA

My professional life has an environmental slant all the way back to my time at the US Environmental Protection Agency (EPA) in the late 1980s/early 1990s, during which period I served as the EPA Deputy Chief of Staff, then Deputy Assistant Administrator for Policy, and was on the US negotiating team that helped to bring to fruition the 1992 Framework Convention on Climate Change. The unifying theme across several jobs in government (including a stint as the head of the state of Connecticut’s Department of Energy and Environmental Protection), a long run in academia (as a professor at Yale), and ongoing work with companies in many sectors trying to bring a strategic focus on energy and environmental considerations into their business practices has been finding ways to deliver transformative change to advance what I call the Sustainability Imperative – the idea that a foundational principle for life in the 21st century requires an end to environmental externalities (notably pollution harms spilled from one entity or individual on to others).

I’ve pushed for better environmental metrics at the global, national, and corporate levels – in part to highlight unsustainable activities that need to be addressed – through the Yale Environmental Performance Index (which offers a scorecard that grades countries on their environmental public health and ecosystem vitality based on 32 indicators). I have also argued for better corporate sustainability metrics (my arguments culminating in *Values at Work: Sustainable Investing and ESG Reporting*, Springer, 2020) to the growing number of sustainability-minded investors get better alignment between their values and their portfolios.

Environmental policy reform has been another of my galvanising interests – across a range of dimensions (see *A Better Planet: 40 Big Ideas for a Sustainable Future*, Yale University Press, 2019). My core research finding in this regard centres on the need for incentives for innovation – not just in



‘In the 20th century, many of us thought that transformative change depended on government action. But I have concluded that there are many points of leverage that should be engaged.’

terms of renewable energy and broader cleantech breakthroughs (although both are important), but also creative approaches to finance for sustainable development, public engagement, partnerships, and policy alignment (for example, restructuring the World Trade Organization and the global trading system to ensure that trade reinforces – and does not undermine – the global commitments to climate change action embedded in the 2015 Paris Agreement).

In the 20th century, many of us thought that transformative change depended on government action. But I have concluded that there are many points of leverage that should be engaged, including: a recast focus in the business world on *stakeholder responsibility* rather than shareholder primacy; greater commitment to transparency and corporate sustainability performance disclosure to empower sustainability-minded consumers, investors, and citizen watchdogs; and emphasis on environmental rights rather than benefit/cost analysis as the foundation for environmental protection – and thus a goal of zero pollution and other spillovers of environmental harm. I have also come to recognise that the pace of change is often painfully slow, but this reality cannot be an excuse for despair or inaction.

David Foster (1981)

Head of Transit, Bikes & Scooters at Lyft, San Francisco, California

Over the past two years, we've seen the global pandemic change the way we get around our cities. Sometimes the change has been for the better, for example the massive global bike boom. Meanwhile, though, public transit ridership is still below pre-pandemic levels and personal vehicle ownership is increasing, threatening to push us in the opposite direction on clean transportation. I oversee the Transit, Bikes and Scooters business at Lyft, an American company that develops and operates an app-based transportation platform, offering rideshare, shared bikes and scooters, and rental cars. At Lyft we are working to help build the world around people, with less pollution and traffic; a world where parks prevail over parking lots, and where people spend less money and have more fun getting around.

Shared bikes and scooters play an important role in reducing vehicle miles travelled. In New York City, for example, we saw that 40% of rides on the Lyft platform last summer were on Citi Bike. We found that 73% of Citi Bike riders do not own or lease a personal vehicle and 43% of riders who have access to a personal vehicle say that they use that vehicle less because of Citi Bike. Overall, our network

(including not only Citibike New York but also other cities that we operate in) had 47 million rides in 2021 from 3.8 million unique riders, who offset an estimated 75 million pounds of carbon, and Lyft is leading the charge as North America's largest bike share operator.

The addition of e-bikes has had a transformative impact on cities and Lyft now has the largest shared e-bike fleet in North America. With their pedal-assist motor, e-bikes allow differently abled people to use bikes, ride up hills and over bridges, and get to work without breaking a sweat. They also enable longer trips, helping to replace car trips more than 60% of the time. That type of mode shift is critical because an e-bike has about one-tenth of the lifecycle emissions of a gasoline-powered car. In an effort to double down on e-bikes, we built a next-generation e-bike with our expertise gained from tens of millions of rides. Among many innovations on the bike, its electrification profile raises the bar in reducing emissions, as it is able to recharge whilst idle at a bike dock and has the capacity for 60 miles on a single charge.

We look forward to continuing to work with cities to provide more sustainable and healthy transportation.



‘We are working to help build the world around people, with less pollution and traffic; a world where parks prevail over parking lots, and where people have more fun getting around.’

Dr Nikola Čašule (2004)

Head of Research and Investigations at Greenpeace Australia Pacific, Australia



I am Head of Research and Investigations at Greenpeace Australia Pacific. My team produces the research that forms the foundations of Greenpeace's campaigns, as well as publishing investigations that expose environmental crimes, enabling Greenpeace's global campaigning operations to hold their perpetrators to justice. The work is varied: from editing ground-breaking research into the climate crisis, to shaping Greenpeace's global campaigns against fossil fuels, to acting as a lead spokesperson in TV and print media (at times while hanging off a strategically placed banner).

Much of our work globally, and in the Pacific in particular, is focused on the climate crisis: ensuring that the world rapidly reduces greenhouse gas emissions so that we can keep global warming to tolerable levels. Notable recent wins have included stopping some of the world's biggest oil companies, including BP, Chevron and Norwegian oil giant Statoil (now Equinor), from opening up the pristine southern Australian coastline to oil drilling; in a single year, securing new renewable energy commitments from leading companies equivalent to a 10% reduction of all Australian electricity

Mina Fredrikke Bohne (2018)

Business Manager, Aker Carbon Capture, Norway

Since graduating from Oxford in 2019 I've been working as Business Manager in Aker Carbon Capture, a tech company developing solutions for large-scale CO₂ emission removal. I am currently working on a project where we are designing and constructing a carbon capture plant that will capture an estimated 100,000 tonnes of CO₂ per year from a waste-to-energy plant in the Netherlands.

Carbon capture and storage (CCS) is recognised by organisations such as the United Nations and the International Energy Agency as an important tool if we are to reach the Paris Agreement global warming scenario. According to the Global CCS Institute,¹ limiting global warming to 2° will require installed CCS capacity to increase from about 40 million tonnes per annum in 2021 to over 5,600 million tonnes per annum by 2050. To put things in perspective, the average person in the UK has a carbon footprint of about 13 tonnes per year.² I believe CCS represents an important means of reducing large volumes of CO₂ from hard-to-abate industries with few alternatives such as steel and cement. Moreover, when applied to biogenic CO₂ sources (the combustion or decomposition of biologically based materials other than fossil fuels) CCS



'We are designing and constructing a carbon capture plant that will capture an estimated 100,000 tonnes of CO₂ per year.'

results in so-called 'negative emissions', meaning that we remove CO₂ that occurs naturally in the atmosphere. This will be important to slowing down global warming.

Carbon capture is often perceived as a new technology, but in fact it is an umbrella term for multiple technologies with various technology readiness levels. The technology we primarily use, post-combustion carbon capture, has been tested and developed for decades. Although the technology is mature, cutting the cost curve and making it financially viable remains a key challenge. Building large-scale carbon capture plants and the infrastructure needed to store CO₂ securely is expensive and to a large extent still dependent on funding from various sources. With many European countries seeing an increased carbon tax, and with continued public pressure for industries to take responsibility for their emissions, I believe we are at the brink of commercialising this technology. I'm excited to be part of this journey!

¹ Global CCS Institute, 2020. www.globalccsinstitute.com/resources/global-status-report/download/

² Pawprint Eco companion, 2020. What is the average carbon footprint per person in the UK? (pawprint.eco)

emissions; and arming Pacific island states to fight for, and win, more ambitious emissions cuts in the Paris climate agreement and in subsequent global climate negotiations.

The Australia Pacific region is uniquely placed in this regard. It is home both to Australia – the largest per-capita emitter in the OECD and the world's largest coal exporter – and to many of the small island nations most at threat from climate-driven harm, such as rising sea levels and fiercer cyclones. The region is also the site of one of today's most critical global foreign policy contests – between China and the US – whose naval and economic interests are increasingly at odds here, and whose

diplomatic overtures to the region are increasingly climate action-tinged.

I am often asked how one maintains optimism in the face of the overwhelming odds that we face in dealing with this crisis. The answer is simple: we are winning, but every fraction of a degree matters. Even if we exceed 1.5 degrees of warming, 1.6 is better than 1.7, which is much better than 1.8. Undoubtedly it can

'My team produces the research that forms the foundations of Greenpeace's campaigns, as well as publishing investigations that expose environmental crimes.'

be daunting; if we reach 2 degrees of warming, for example, 99% of all coral reefs in the world will bleach and die. We have, therefore, a common duty to do all we can in our individual professional and personal lives to stop it – beginning with a rapid phase out of fossil fuels, and moving across to all sectors of the economy. A better world is out there for the taking, if we are just able to reach out for it together.



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