

worcester

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CONTENTS

New horizons for the Provost	4
What a garden party	6
Giving disadvantaged pupils a fairer chance	8
Illuminating coral reef hotspots	10
Celebrating 30 years	12
Health benefits of the gardens	14
Toast the gin made with Oxford botanicals	16
Recently appointed Fellows	18
Student news	21
Events programme	24

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Coleen Day DEVELOPMENT STRATEGY FELLOW

Where to begin in this 24th edition of the *College Magazine*. In the previous edition, we congratulated the Provost, Sir Jonathan Bate, on having recently joined the 60 Club. This time round, we are saying farewell as he is taking on a new challenge as Foundation Professor of Environmental Humanities in a joint appointment in the College of Liberal Arts and the School of Sustainability at Arizona State University in Phoenix, Arizona. The Interim Provost, Professor Kate Tunstall, recently spoke at the event to celebrate the successes of the Tercentenary Campaign, thanking Jonathan on behalf of the College for the extraordinary service he and Paula had given over the last eight years and for the work he had done with our munificently generous Old Members. She spoke of his predecessors Dick Smethurst and Asa Briggs, saying, 'At the heart of what we do in College is teaching. Many of us are, I expect, only here because at some point in our lives, we had an inspirational teacher. And it's wonderful for us to know that it's teaching that you are leaving us for'. She spoke of the campaign successes, thanking all our donors and concluded, 'I don't believe the grass is greener anywhere else, but if anyone could make it so, even in Arizona, it's you and Paula.'

Other changes include recently appointed Fellows whose biographical details appear in this issue, including Dr Lisa Wedding, Associate Professor in Physical Geography and Tutorial Fellow, who has written about how coastal communities depend on a healthy coral reef ecosystem for food. Honorary Fellow, Sir Richard Thompson, tells us about the health benefits of the gardens and, if gin is your tippie, Professor Simon Hiscock talks to Maria Coyle about why he as Director of Oxford Botanic Garden is working on a project with a distillery.

Under the Student News Section, you will see that our students have been busy, winning cricket Cuppers; women's rugby has taken off, and Phoebe Sloper, a current engineering student, describes her educational trip to India.



The Events Programme appears on the back page; we hope there is something of interest to all and that we will see you in College over the coming year.

The ceiling of the Hall is featured on the front cover. As I mentioned in the previous *Magazine*, we are grateful to Lord John Sainsbury and the Linbury Trust for their huge generosity in transforming what is referred to often as the heart of the College.

Finally, you may notice the *Magazine* has had a bit of a makeover. We have a new range of pastel colours based on Worcester's pink; blue inspired by the renovated Hall and representing the lake; green for the gardens and grounds, and yellow which makes us think of our colourful flower borders. These pastel colours have been used throughout the *Magazine* and, together with the grey font, I hope you will agree, give a soft yet strong and confident look. We have made other subtle changes which you may spot, for example, 'worcester' is all lower case on the cover; less subtle, the pangolin. Why a pangolin you may ask? This is one of the beautiful little walnut-wood carvings depicting more than 30 animals on the end of the pews in the College Chapel. Given there are so many, we thought it might be fun to feature a different carving on the cover of each edition — I'm sure Burges would approve.

We hope you like the new look and enjoy reading the 24th edition.

New horizons for the Provost

SIR JONATHAN BATE



My final Trinity term as Provost has given a special lustre to the annual round of College and University engagements.

By good fortune, it was Worcester's turn to offer our Hall – looking magnificent after its refurbishment – for the annual dinner for departing Heads of House, so I found myself as both host and valedictorian. I discovered on this occasion that my eight-year tenure is a little above the average: I was one of five who arrived in 2011, of whom three have already moved on and the other is about to. The demands of the role nowadays, with so much fundraising, administration, management and compliance work, in addition to the traditional social and ceremonial duties, mean that the days of lengthy tenure are long gone. But it has been a terrific privilege to work with such a talented group of fellow Heads, from such varied backgrounds, both academic and worldly: this year was a particularly good one as we all worked together to help create the new schemes for outreach and access – the 'bridging' programme and the Foundation Year – that will give real Oxford opportunities to pupils from disadvantaged schools.

It was also our turn to host the Encaenia Garden Party on the day when Honorary Degrees were bestowed. The sun shone on the cricket field as nearly two thousand guests, many in exotic academic robes, ate strawberries and admired the architectural glory of the Sultan Nazrin Shah Centre.

I was also swept into a glorious array of farewell events. There was my final Benefactors' Garden Party, about which you will read elsewhere in this issue of the *Magazine* – though I should say my final Garden Party as *Provost*. Then there was a splendid event to induct our latest crop of new Honorary Fellows – Old Members of the College who have done extraordinary things in many different walks of life – and to celebrate the successes of the Tercentenary Campaign.

Our current students gave me greatest joy, by way of three farewell gifts: first, an exquisite concert of baroque music around the harpsichord in the Lodgings Dining Room; a cricket match between the JCR Leavers and the Provost's XI, which my team won, mainly thanks to the demon bowling of my 'ringer', DPhil student Samantha Moore. Samantha also makes time to play for Oxfordshire Women, whilst doing her medical research. Finally, there was a hilarious and beautiful production of *Love's Labour's Lost* in my back garden, featuring guest appearances from a 1933 white convertible Rolls Royce, and then the actor Simon Callow, who surprised everybody on the last night by coming on as the messenger who announces that four weddings are to be postponed because of a funeral. The talents of our students know no bounds, and I shall miss them like anything – as I will miss all of our loyal Old Members

and staff members (especially the porters and the gardeners!).

As I announced at the beginning of the year, I am ready to get back to teaching and writing. What I could not say publicly then, for fear of incurring the wrath of the United States Citizenship and Immigration Services (and their master in the White House), is that I had been asked by Michael Crow, who is widely regarded as the most visionary university president in America, to take on a new challenge as Foundation Professor of Environmental Humanities in a joint appointment in the College of Liberal Arts and the School of Sustainability (the first such school in the world) at Arizona State University in Phoenix. ASU happens to house a centre for medieval and Renaissance studies. Colleagues include a number of the world's leading Shakespearean scholars; I will be continuing my work on the plays whilst also broadening my interest in the poetry of nature – from William Wordsworth to John Clare to Ted Hughes – into a much wider, cross-cultural and trans-historical exploration of how the arts and humanities can contribute to our multiple crises of sustainability.

Paula, meanwhile, will be continuing to write books, both fiction and biography, as well as developing her charitable work on the mental health benefits of poetry and the other arts, contributing to the holistic patient care of the Mayo Clinic, which is just around the corner from the house that will be our home in Scottsdale. Tom and Ellie will be going to university in the States and young Harry has a place at a high school with a special focus on the performing arts: he is a budding actor, as could be seen in *Love's Labour's Lost*.

Arizona State has asked me to bring the languages of the humanities – narratives, emotional engagement, and historical perspectives – to debates about the environment. It was an offer too important to refuse. I imagine a reanimation of the vision of John Ruskin, who is remembered so well in Oxford. Writing under the influence of Wordsworth, he argued that

There are three Material things, not only useful, but essential to Life. No one knows how to live till he has got them. These are, Pure Air, Water, and Earth. There are three Immaterial things, not only useful, but essential to Life. No one knows how to live till he has got them. These are, Admiration, Hope, and Love.

We need our scientific researchers and our policy makers to find ways of ensuring that there is pure air, water and earth for the next generation. But we will only save ourselves and all that we value if we learn to treat not only all peoples, but also the planet itself, with admiration, hope and love, and the arts and humanities have an essential role to play in that.



What a Garden Party...

COLEEN DAY GIVES A FLAVOUR OF THE ANNUAL BENEFACTORS' GARDEN PARTY

Due to the very unpredictable weather, this year's Benefactors' Garden Party on Saturday 15th June got off to a rocky start. It began with Stuart McAllister, the Catering Manager, calling me at about 9.30 am, saying: 'What do you think? I have just looked at the weather forecast, it's not good. Let's set up the tables and chairs outside but serve the food inside,' and so it was agreed. Stuart and I have worked together for well over 20 years now and we know what to expect from each other, which is a real bonus when running an event.

Our Catering Team did a magnificent job of setting up the tables and chairs on the edge of the sports field just outside the Sultan Nazrin Shah Centre in readiness for

the afternoon party. The Development Team, Gemma, Sophie, Maria and Anna were great, arriving in good time, setting up the meet and greet desk and generally running around in the background to make sure all ran smoothly.

By the time we got to 3 pm when we were expecting our guests to arrive, the heavens opened—we had an absolute downpour more like a monsoon. Not to be put off, some 300 or so Worcester Benefactors arrived, some of whom were absolutely drenched; I have never seen so many dripping umbrellas, but all were in good spirits and despite the initial downpour had a great time. We served an array of cakes, scones, sandwiches,

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I have never seen so many dripping umbrellas, but all were in good spirits and despite the initial downpour had a great time.

strawberries and cream, and even the odd glass of Prosecco in the foyer of the Sultan Nazrin Shah Centre. The Oxford Silver Band set up in the auditorium, which must have seemed rather odd to them as they were unable to see our guests. We all just went with the flow. Then as if on cue as the time approached 4 pm, the rain stopped; at which point the catering team changed gear, running out to wipe the rain off the chairs as our guests spilled out of the Sultan Nazrin Shah Centre in time for the Provost to give his final speech, this being the last Benefactors' Garden Party he would attend as Provost.

Sir Jonathan, who can be relied upon to give a magnificent speech, was wonderful, saying how much

he had enjoyed his time at Worcester and whilst he was sorry to be leaving us, he was greatly looking forward to returning to his academic work. He talked about his continuing academic association with the College, the Governing Body having recently elected him to a Senior Research Fellowship. He thanked all Worcester's Benefactors for their support during the hugely successful Tercentenary Campaign, which reached its target in no less than five years rather than the predicted ten, but reminded all those present that fundraising continues...

We wish Sir Jonathan, Paula his wife, Tom, Ellie and Harry all the very best for the future.

Giving disadvantaged pupils a fairer chance

DR MARCHELLA WARD, TINSLEY OUTREACH FELLOW



Marchella Ward gives a presentation to Social Mobility Foundation visitors from London

Last year, a large group of 12-year-olds visiting Worcester College from state schools in Bradford were asked, ‘Are you planning on applying to university?’

In a move that surprised their teachers almost as much as it surprised us, nine out of every ten responded that ‘Yes’, they were planning to apply, and that same proportion agreed that they could make a competitive application to Oxford University. That outreach work’s biggest challenge is to ‘raise aspirations’ in children is an out-dated way of looking at the issue of under-

representation of students from backgrounds similar to those of these 12-year-olds at highly selective universities. Young people, as these students showed us that day, have plenty of high aspirations. What they lack are opportunities and the support that they require to meet them.

It is fair to say that Oxford (as well as other highly selective universities) asks a lot of its prospective students. They must perform well at school, both at GCSE and at A’ Level, submit an application (including a personal statement that proves their engagement with and passion for their chosen subject of study), sit entrance

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Worcester’s access and outreach work engages students to improve their performance at school, and encourages them to make informed decisions about their university application and subject choice.

tests and submit examples of their written work, and be able to discuss the big questions of their subject during a series of interviews. An applicant’s ability to perform well in each part of this admissions process is affected by the opportunities, preparation and support they have received, both inside and outside of school: access to books and articles, time to practise sample papers for the admissions tests, enthusiastic teachers and sympathetic parents and guardians are not evenly distributed among the population. Our applicants do not go through each stage of this process benefitting from equal amounts of support, so it is unsurprising that they meet these challenges with varying degrees of success.

The role of access and outreach work is to level the playing field at each stage of the admissions process. Worcester’s access and outreach work engages students to improve their performance at school, encourages them to make informed decisions about their university application and subject choice, supports them through the various challenges of the application process, and keeps them on track to achieve the grades set out in the offer that they might eventually receive. Thanks to support from Old Members, we are looking forward to expanding our outreach work over the coming years, with my appointment as the Tinsley Outreach Fellow as well as a community of access-minded tutors and lecturers providing the catalyst for change within the College. In addition to running ThinkBig, our sustained programme of engagement with pupils in schools across Bradford that supports students from year 8 to year 11 (12-16 years old), this year we will introduce a number of events to address

strong feelings of educational disadvantage within the admissions process, as well as promoting high attainment in schools.

Because of the way that the University organises outreach regionally (by dividing up the country and allotting each college a ‘link area’ in which to focus their work), the majority of our outreach work is focussed in Bradford, Leeds, Kirklees, Calderdale and Northamptonshire. Bradford was chosen in 2016 as one of the Government’s 12 Opportunity Areas – places that scored the lowest on both the Social Mobility Commission index and on metrics used by the Department for Education to measure school standards. Our link areas contain some of the children who are the least likely in the country to perform well at school and progress on to higher education, particularly into highly selective universities.

While universities are not solely responsible for the different kinds of inequality that shape a young person’s education, there is evidence that outreach work can change their performance at school for the better – and can actually help them achieve better results in their A’ Levels. University outreach work not only raises pupils’ aspirations it also helps in concrete ways. Young people have already told us that they want to aim high – it is up to us to remove the barriers of disadvantage and inequality, and show them that their aims are within their reach.

To read more about our outreach projects, see: <https://www.worc.ox.ac.uk/applying/access-and-outreach>

*One Oxford undergraduate in four is set to be from the UK’s most under-represented backgrounds by 2023, thanks to two ambitious access schemes unveiled by the University on 21st May 2019. Worcester is part of Opportunity Oxford, aimed at students from more disadvantaged socio-economic backgrounds. From the next admissions round, Opportunity Oxford will see the University introduce a study programme for up to 200 students who have applied to the University in the normal way and are on course to gain the required grades, but need additional support to transition successfully from school to Oxford.

See: <http://www.ox.ac.uk/admissions/undergraduate/increasing-access/opportunity-oxford>

Illuminating coral reef hotspots

DR LISA WEDDING, ASSOCIATE PROFESSOR IN PHYSICAL GEOGRAPHY AND TUTORIAL FELLOW

Coastal communities depend on healthy coral reef ecosystems for food, clean water, commerce, and culture. These reefs are also home to a rich diversity of tropical fish and other vibrant species. Among the range of threats posed to coral reefs, a warming ocean due to climate change is among the most concerning. In order to protect reefs for future generations, it is critical to understand where reefs demonstrate the greatest diversity and resilience to inform conservation and restoration efforts.

A new study led by recently appointed Physical Geography Tutorial Fellow at Worcester College and Associate Professor, Lisa Wedding, uses remote sensing technology to illuminate coral reef complexity and biodiversity. Remote sensing technology has become increasingly important in mapping, monitoring, and understanding global marine systems. Dr Wedding turned to a novel technology called LiDAR (Light Detection and Ranging), a remote sensing tool that uses light in the form of a pulsed laser to measure high density depth measurements of the seafloor to make high-resolution maps that also show the 3D structure of the landscape. This allowed her to create 3D models, bringing to life the true complexity of the coral reef seafloor.

‘Mapping and placing value on reef areas that represent biodiversity hotspots are important for coastal communities that rely on healthy reef fish populations for food, tourism and culture. This information can help to inform urgently needed management actions to sustain healthy reefs and healthy coastal communities,’ said Lisa.

Dr Wedding and her team took to their SCUBA gear and dived on 625 coral reef sites in order to inform their seascape models. The divers tallied the type and length

of each coral reef fish species present. In the case of coral reefs, elaborate habitat configurations indicate higher potential for biodiversity, a chief indicator of a healthy ecosystem. Equipped with this information, the researchers were able to create predictive models of the reef fish community, based on their SCUBA survey data.

Surprisingly, the most effective model was a combination of the 2D and 3D LiDAR satellite data, which most accurately predicted coral reef fish diversity, biomass and density. While used widely in the past, using 2D satellite data for coral reef mapping has limitations, as only planimetric (or horizontal) areas of habitats are accounted for rather than the total complex 3D structure.

‘We found that 2D characterisation of the seafloor does not capture the intricate relationships between reefs and fish communities, and the application of LiDAR in this work helps to advance seascape ecology theory and application in the third dimension,’ said Lisa.

This research was published recently in *Remote Sensing in Ecology and Conservation*, and established a cost effective and accurate method for identifying coastal ‘hotspots’ as an essential step in the creation of effective



management plans for marine conservation. The team concluded that marine protected areas located on reefs with complex 3D structures should be a management priority and remote sensing technology can help coral reef managers identify these important areas along our coastlines. Using these remote sensing methods could help inform marine management decisions which aim to sustain and protect coral reefs and provide a cost-effective approach to forecasting potential impacts to fish communities caused by changes to the reefs, for example through hurricanes, human activity, climate change, and ocean acidification.

‘Understanding the seascape from a 3D perspective offers great potential to advance our knowledge of coral reefs,’ Lisa said. ‘LiDAR remote sensing allows us to capture the intricate 3D vertical structure of coral reefs

and understand where habitats have high conservation value to inform future ocean planning efforts. Our research supports the design of marine protected areas in these locations, which should be a management priority, as habitat complexity can enhance reef resilience and recovery.’

Read the paper: <http://bit.ly/2v2CqJ1>

Watch the video abstract: <https://www.youtube.com/watch?v=PrCbtpGTVJQ>

Celebrating 30 years at Worcester



On 22nd September 2018 120 students, past and present, gathered in the Sultan Nazrin Shah Centre for a Theology Conference organised by Professor Susan Gillingham to celebrate 30 years of her teaching theology at Worcester.

In the morning, after Sue's own lecture reflecting on 30 years in the College and faculty, Dr Holly Morse (2012) [University of Manchester] and Dr Natasha O'Hear (2000) [St Andrews] each gave a paper on 'reception history', the field in which Sue has established an international reputation. The afternoon saw a loosely-structured 'careers fair'. The final formal session was a lively discussion, entitled 'What is theology?', between two old friends from graduate days. Their beliefs and careers could not have been more different: The Rt Revd Dr Helen-Ann Hartley (1988) Bishop of Ripon, better known to some as a former Junior Dean, which she claimed was invaluable experience for a bishop, and Professor Francesca Stavrakopoulou (1994), who has a chair in Hebrew Bible and Ancient Religion at Exeter University and approaches the Bible from a humanist standpoint. Prior to a splendid dinner in Hall, the recently ordained Dr Gillingham led a service in Chapel, at which the choir performed some wonderful pieces on the psalms. Over dinner The Revd Canon Dr Peter Groves, Senior Research Fellow and College Lecturer in Theology, paid a brilliantly witty tribute to Sue's ability to combine teaching, research and administration over three decades.

Balancing these three elements of her professional life, as well as her family responsibilities, was one of the two themes running through her opening address of the conference. The second being how concerned undesirable centralising forces were tending to erode the place of College-based activities.

Sue was first appointed a lecturer in the Old Testament in 1988, joining The Rt Revd Tom Wright, who combined a Tutorial Fellowship in Theology with the College Chaplaincy and subsequently become the Bishop of Durham. Sue succeeded him to the Tutorial Fellowship in 1995. She began her talk, interspersed with statistics and personal photos, including a picture from an early time in her career. It showed her two daughters, the younger aged two with her arm in a sling and the older, aged six, who had spun the younger around in a revolving chair, catapulting her across the room, breaking her collarbone. Sue looked at the audience, saying, 'Some of you will remember babysitting'.

Turning to access and admissions, Sue described how in her early career she had been very involved in 'access' initiatives not only as an officer on behalf of the faculty but also within the College, particularly in creating liaisons with schools and hosting gatherings of RE teachers. Now there is a professional Undergraduate Studies Officer combining publicity, access, admissions, examinations, and syllabus reform and delivery. The present post-holder, Dr Mary Marshall, is coincidentally a Lecturer in the New Testament for Worcester.

Sue went on to talk about the second area of change in the undergraduate syllabus, exemplified by the change in the faculty's name from 'Theology' to 'Theology and Religion'. The two-term prelims are now at the end of Trinity term. The formerly separate papers in Old and New Testament have been combined to allow an

Theology in the Faculty
and in the Colleges:

Thirty Years of Change (1988-2018)

additional 'Religions' paper to reflect what schools have been teaching in a multicultural society. In addition, Sue noted finals papers have been through two major syllabus reforms, from three 'tracks' (Biblical Studies; Christian Life and Thought; the Study of Religions) in 1995 to the introduction of maximum freedom of choice of papers in 2016. Choice is, however, constrained by a stipulation that at least six students must choose a paper for it to be viable – 'pretty difficult for the faculty to handle, and very difficult for College Tutors to know how many hours they will be teaching from one year to the next'.

Sue touched briefly on changes to graduate examination structures, and on the difficulties caused by the present faculty site in the Radcliffe Observatory Quarter, saying, 'an academic atmosphere is hard to create in what was a hospital ward'.

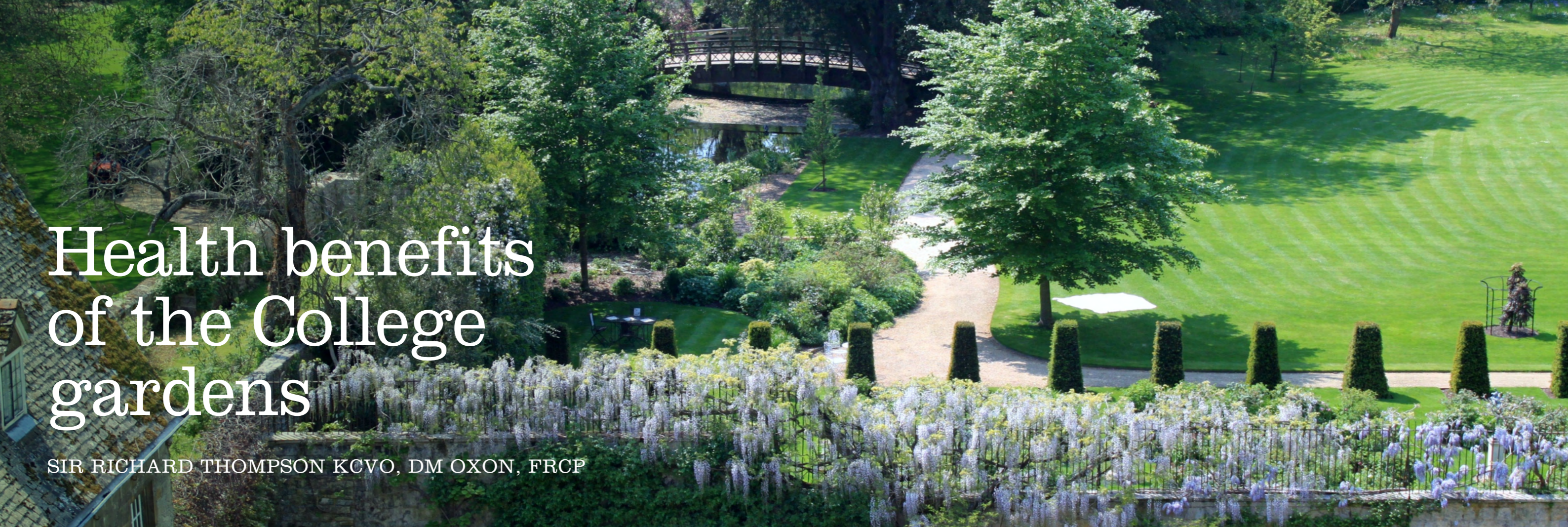
Turning to developments in the College, for the past two decades undergraduate numbers have been stable at four for Theology and two for Philosophy and Theology; hence Worcester remains a 'single Fellow' subject with three College lecturers: Dr Peter Groves, Dr Mary Marshall and Dr Afifi al-Akiti (2001), who is now a Governing Body Supernumerary Fellow. There has been a notable increase in graduate numbers: in the academic year 2018-9, there were 17 undergraduates and 15 graduate students, for the majority of whom Sue has acted as College Advisor. She went on to say: 'The termly graduate lunch provides an opportunity for the presentation and discussion of research papers, whilst the formal theology dinners where the tradition of inviting a guest speaker continues, bringing the whole theology community together twice a year for discussion. A sense of College community is vital; it provides pastoral and social care in a way that the faculty, which does not see students in their accommodation and social setting,

never can.'

Reflecting on the way in which the College's numbers and accommodation have expanded over her 30 years, Sue emphasised the importance of donations. She was very grateful for the Bartlett Sisters' Theology Fund, initially funded by the Revd Graham Mitchell (1971) in memory of four spinsters in his parish; the fund has greatly increased through later donations – some coming from donors in the audience. This has helped undergraduates to visit Israel/Palestine, enabled graduates to attend conferences, and supported research assistance for two of the three volumes of Sue's reception history of the psalms. She was particularly pleased to announce that a major legacy bequest had been made by an anonymous donor, to endow in perpetuity the Theology Fellowship and Chaplaincy at Worcester. 'Small subjects in the Humanities are at risk within the University as a whole,' she said. 'Since the 1980s I have seen undergraduate Theology disappear from Balliol, St Hugh's, Corpus, and Exeter.'

Finally, Sue touched on her own research, providing copies of her paper on her approach to 'reception history'. Her talk ended with a blitz of photographs taken at various social events, especially Schools Dinners. 'Thank you all,' she concluded, 'for what you have added to my life over the years. Being a Tutorial Fellow is very much about a two-way relationship, and I am grateful to you for all the memories you have given me. Thank you for applying to Worcester.'

A memorable celebration to mark her 30 years.



Health benefits of the College gardens

SIR RICHARD THOMPSON KCVO, DM OXON, FRCP

As they admire the wonderful College gardens tended by Simon Bagnall, few Fellows or undergraduates will fully appreciate the health-giving properties of gardens. In an experiment with players of the economics *Dictator* game, simply viewing pictures of plants affected the decisions they took, while in Japan looking at pictures of plants was shown to reduce anxiety, blood pressure and muscle tension. In much quoted studies, the American environmental psychologist Roger Ulrich showed in randomised trials that viewing green spaces, rather than concrete, through the windows of post-operative hospital wards significantly reduced pain and length of hospital stay. In a prison in Michigan, inmates with a view from their cells of the countryside used the medical services less than those looking onto courtyards. This was independently supported by studies that showed that dental treatment or bronchoscopies of the lungs were less unpleasant when patients saw images of natural scenes. Although pictures of the countryside reduce anxiety, perhaps unsurprisingly abstract paintings have the opposite effect. Indeed, abstract paintings were selectively vandalised in a Swedish psychiatric hospital; galleries of modern art may be stimulating, but not always relaxing!

Plants growing indoors may benefit health by reducing the concentration of toxins, dust and microorganisms that are universally present in the air; in an experiment in a computer office, introducing indoor plants increased

productivity and reduced blood pressure. A recent experiment enhanced this scrubbing effect by creating a transgenic form of the popular indoor 'Money Plant' (*Epipremnum aureum*), splicing into it a leporine gene for a cytochrome P450 enzyme that metabolises organic toxins in the liver. This 'green liver' vastly increased the ability of the plant to break ambient toxins, a concept that must have great potential. Perhaps all tutorial rooms should be equipped with growing plants to boost the transfer of knowledge?

Considering gardens and green spaces, the message is the same. The leaves of trees, plants and even grass effectively remove toxins from the air, transporting them to their roots where they are metabolised by microorganisms. Roadside trees reduce pollution, and so there are campaigns to plant more trees in urban areas. Air pollution causes 9,000 premature deaths annually in London alone. Living near polluting roads seems to be particularly dangerous, and may increase the incidence of dementia. The bottom of Beaumont Street with its congested traffic is particularly dangerous to pedestrians, but the trees of the College gardens over the wall will help to offset this toxic atmosphere. Studies in several countries have shown that proximity to green space is associated with less depression, anxiety and stress, so walks in the College gardens could be beneficial, especially in finals week. Nearby trees also help to keep buildings warmer in the winter and cooler

in the summer.

Therapeutic gardens in hospitals were promoted by Miss Nightingale, who no doubt accurately described nurses at the Radcliffe Infirmary as 'the most wretched creatures', and gardens are now being designed around hospices, and for units that rehabilitate the chiefly young patients with devastating spinal injuries. These are named Horatio's gardens, in memory of Horatio Chapple who was about to attend medical school, but was tragically killed by an *Ursus maritimus* in the Arctic. The gardens are designed to allow the patients in wheelchairs or beds to get outside and enjoy them, and sometimes actually tend the plants.

What about gardening itself? Positive all the way. It not only offers calorie-burning aerobic physical exercise but also sunlight and relaxation. It can be good for those with mental health problems, and is recommended for veterans with post-traumatic stress disorder. Would Mr

Bagnall welcome undergraduate volunteers stressed out by their courses? One of my favourite scientific studies is from Australia, for it showed that gardening was better than either moderate alcohol consumption or exercise in protecting against the onset of dementia. So perhaps gardening for the SCR?

I hope that I have convinced readers that exposure to indoor plants, observing or walking in green spaces and gardens, or even gardening itself, should be part of the years spent in Worcester. The College is blessed with beautiful gardens and grounds, and I therefore recommend that tutorials and seminars should be held in rooms containing plants and restful pictures of nature, or even better held outside in the gardens, and that every fellow and undergraduate should be able to see the gardens or other green space out of the windows of their rooms. Who knows what these changes might do to the examination results?

Sir Richard was Consultant Physician, St Thomas' Hospital (1972-2005), and twice Governor of the Guy's and St Thomas' Hospitals NHS Trust (2004-05 & 2007-10). He was Treasurer and then President of the Royal College of Physicians (2003-14), and Physician to the Medical Household and then Physician to HM The Queen (1983-2005). He published over 250 research papers. He was also a member of the Independent Monitoring Board of Feltham Young Offender Institute (2005-08), and a trustee of various medical charities, currently of the National Garden Scheme, and a patron of the gardening charity Thrive. He was an undergraduate at Worcester (1958-62), and is an Honorary Fellow of the College (2008).

Read regular updates on Worcester's Gardens and Grounds in a new section of the College website at <https://www.worc.ox.ac.uk/about/gardens>

Toast the gin made with Oxford botanicals



Like a good gin and tonic, the business partnership forged between Worcester alumnus Professor Simon Hiscock, Director of the Oxford Botanic Garden, and The Oxford Artisan Distillery (TOAD) is fizzing. Simon says the University's 'Physic Gin' continues to do well in Oxfordshire retail outlets.

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As we have the 400th anniversary of Oxford Botanic Garden in 2021, I thought it was obvious to create a product that celebrated its heritage.

'Physic Gin' refers to the precursor of today's Oxford Botanic Garden, originally known as the Physick Garden – founded by Henry Danvers, first Earl of Danby, in 1621, for the teaching of herbal medicine. 'As we have the 400th anniversary of Oxford Botanic Garden in 2021, I thought it was obvious to create a product that celebrated its heritage. We need to raise money through commercial routes to help pay the running costs of the Oxford Botanic Garden,' Simon said.

Twenty-four of the 25 botanicals used in the gin appear on a 1648 list of plants grown at the Physick Garden. Many of them are still in the Garden today, including varieties of citrus, wormwood and angelica and although Szechuan pepper is not on the list, the Master distiller Cory Mason added it to provide piquancy to the flavour of the gin.

While most gin companies buy in their alcohol, the TOAD distillery makes it from scratch in hand-built copper stills, using heritage barley, wheat and rye varieties originally cultivated in the 15th and 16th centuries. Simon was impressed with their approach from the outset. 'We seemed to talk the same language, sharing an interest in the heritage of the plants that go into the product,' he said.

They are now planning their next business venture – a brand of whiskey, named after the Garden's iconic 'Black Pine', which is thought to have inspired fantasy author JRR Tolkien to create talking tree-like characters in his *Lord of the Rings* series. The Garden's famous tree was cut down for safety reasons in 2014 after splitting in two, but its wood was kept for posterity. Simon plans to put it to good use, with the aim of having every one of the whiskey bottle-stoppers containing its own little piece of the 'Black Pine'. Do not get too excited just yet as, inevitably, this is a long-term project; the whiskey needs to mature very slowly, for at least five years.

The first exhibition in the Oxford Botanic Garden's recently created Herbarium Room focused on the Bobarts, the original keepers of the Physick Garden. As Jacob Bobart the Elder was also the landlord of a local tavern, we might suppose that he would have approved of the University selling its own gin and whiskey to help secure the future of the Garden's famous collections.

As part of the Alumni Weekend, on Saturday 21st September between 4-6 pm, Professor Simon Hiscock will be offering the opportunity to taste the delicious 'Physic Gin' at the University of Oxford Botanic Garden.



CONNECTIONS WITH WORCESTER

Simon Hiscock was an undergraduate student of Botany and chose Worcester because of its beautiful surroundings and its cricket pitch.

He recently captained a Gardens, Libraries and Museums cricket team (above) against a team led by Dr Xa Sturgis, Director of the Ashmolean Museum and Supernumerary Fellow of Worcester. The friendly at Worcester on 25th July 2019 resulted in victory for Simon's team.

Simon has been a member of Worcester's Garden Committee, periodically, since he was a Junior Research Fellow in the 1990s, and he continues to advise the gardening team today.

Recently appointed Fellows



Dr Merve Emre is Associate Professor in Literature in English (Modern and Contemporary) and Tutor in English. She specialises in 20th-century American literature, with a particular interest in the novel after 1945, literary institutions, the practices and politics of reading, and the history of the humanities.

Merve was awarded her BA at Harvard and completed her MA, MPhil, and PhD at Yale. She is the author of three books: *Paraliterary: The Making of Bad Readers in Postwar America* (Chicago: University of Chicago Press, 2017); *The Personality Brokers* (New York: Doubleday, September 2018), selected as one of the best books of 2018 by *The New York Times*, *Economist*, and *The Spectator*; and *The Ferrante Letters* (New York: Columbia University Press, 2019). Her essays and criticism have appeared in *The New York Review of Books*, *The New York Times Magazine*, *Harper's Magazine*, *The New Yorker*, and *The Atlantic*, among others. Prior to her appointment at Oxford, she was Assistant Professor at McGill University in Montreal, Canada, and a Junior Fellow at the American Academy of Arts and Sciences.

Dr Hauke Marquardt is Associate Professor of Solid Earth Geosciences and Tutorial Fellow in Earth Sciences. His research focuses on the experimental exploration of material properties at extreme pressure, and temperature



conditions typical for planetary interiors and their effects on planetary dynamics and deep interior material cycles. He develops and performs both laboratory experiments and measurements at large-scale synchrotron facilities, such as the Diamond Light Source at Harwell campus, and closely interacts with observational geophysics, as well as computer modellers.

Hauke was group leader for four years at the University of Bayreuth. Before that, he was a researcher at the German Research Center for Geosciences, as well as the University of Berkeley. He holds an MSc in Mineralogy and Materials Science from Eberhard-Karls-University in Tübingen (Germany), and a Doctor *rerum naturalium* in Mineral Physics from the Free University of Berlin.

Dr Andrzej Murawski is Associate Professor of Programming Languages and Bernard Sufrin Tutorial Fellow in Computer Science. His research focuses on the mathematical semantics of programming languages and applications in software verification. In particular, he specialises in modelling computation using games, an area known as games semantics. A Royal Society Leverhulme Trust Senior Research Fellowship supports his current research into concurrent games.



Previously, Andrzej was an Associate Professor at the University of Warwick. Before that, he was a Lecturer at the University of Leicester and an EPSRC Advanced Research Fellow at Oxford. He holds an MSc in Mathematics and Computer Science from Nicolaus Copernicus University in Torun, Poland, and a DPhil in Computation from Oxford.

Dr Robert Smith is Associate Professor of Quantum Information and Tutorial Fellow in Physics. His research involves using atomic gases cooled down to just a few billionths of a degree above absolute zero to explore the weird and wonderful behaviour of many-particle quantum systems. He has set up a new experimental



ultra-cold atom group in the Clarendon Laboratory, who are currently studying the effect of long-range interactions on quantum fluids.

Robert spent the first five years of his research career investigating magnetism, superconductivity and quantum phase transitions at the University of Cambridge before switching fields, in 2008, to study cold atomic gases. In 2012, he became a Royal Society University Research Fellow in Cambridge. He also held a Fellowship at our sister college, St Catharine's.



Dr Emanuela Vai is the Scott Opler Research Fellow in Architectural History. She was awarded her PhD at the University of St Andrews and has since held postdoctoral research positions at the University of

Cambridge, and the Centre for Renaissance and Early Modern Studies at the University of York. Before coming to Oxford, she was Hanna Kiel Fellow at the Harvard University Center for Renaissance Studies at Villa I Tatti.

Emanuela works at the intersection of art and architectural history, soundscape studies and musicology. She has published on a range of subjects focusing on the relationships between architecture and music, and the material, spatial and sensorial

dimensions of Renaissance social life. Her essays and articles have appeared, or are forthcoming, in publications by Bibliotheca Hertziana, Brepols, Olschki and Skira, and in journals such as *Renaissance Quarterly*, *Art History* and *Confraternitas*. She has been the recipient of grants and fellowships from the Society for Renaissance Studies, the Royal Historical Society, the Renaissance Society of America, the Kress Foundation, the École Pratique des Hautes Études and the Newton Trust at the University of Cambridge, among others.

Emanuela serves on the scientific committee of Albertiana and Artes Rinascentes. She is the founder of the Renaissance Musical Instruments Network and collaborates with the Royal Academy of Music in London, and the Museum of Archaeology and Anthropology in Cambridge. Co-author of *Reshaping Sacred Space: Liturgy, Patronage and Design in Church Interiors ca 1500-1750* (2015), she is currently preparing a monograph entitled 'Art, Architecture and Music between Pietas and Magnificentia at the Confraternity of the Misericordia Maggiore in the Venetian Terraferma', and editing a collection of essays on the material culture of Renaissance music.



Dr Ton van den Bremer is Associate Professor in Fluid Mechanics, and Edward and Catherine Wray Tutor and Fellow in Engineering. His research interests are in geophysical fluid mechanics, understanding the role of non-linearity in surface and atmospheric gravity waves. He uses a combination of experimental and theoretical techniques. He led the research team that recreated the famous Draupner rogue wave in the lab,

which attracted extensive media coverage and gained new insights to help us predict and avoid such rogue waves in the future.

Ton holds a Royal Academy of Engineering Research Fellowship (2017-2022), which supports his research into the role of waves in the transport and spreading of plastic pollution in the ocean. He also has an interest in stochastic processes, applied to the economics of natural resources and climate. He was previously at the University of Edinburgh, where he was a Chancellor's Fellow in Geophysical Fluid Mechanics (2015-2017). He was a Visiting Professor at the University of Alberta, Canada (2016-2017); a postdoctoral Research Fellow and Adjunct Lecturer at Vrije Universiteit Amsterdam (2015); a College Lecturer at Keble College (2013-2014); and holds a Visiting Professorship at the University of Edinburgh. Ton holds a MEng in Civil Engineering from Imperial College London, an MPhil in Economics (St Antony's), a DPhil in Engineering Science (New College) and a PhD in Economics from Vrije Universiteit Amsterdam.



Dr Marchella Ward is the College's first Tinsley Outreach Fellow. She leads the College's outreach and access activities for half of her time, with the rest focused on research in her field of Classics. She spent the last academic year as Archivist-Researcher at the Archive of Performances of Greek and Roman Drama (APGRD), based at the Oxford Classics Faculty. She was an Access and Outreach Officer at Regent's Park College, Oxford, and also taught various aspects of ancient drama and its reception at Bristol, Warwick and Goldsmith's College, University of London.

Her research focuses mainly on the reception of ancient drama in the modern (and early modern) theatre, but she is also interested in the reception of Ovid, particularly in authors who exploit Ovid's potential for performance. She recently wrote a chapter for the book, *Epic Performances: from the Middle Ages into the Twenty-First Century*, OUP 2018.

She has forthcoming articles on a 16th-century musical theatre version of Oedipus, and different aspects of disability studies and its interactions with classical reception.



Dr Lisa Wedding is an Associate Professor in Physical Geography and a Tutorial Fellow of Worcester College. Before arriving at Worcester in April 2019, she held a Research Associate position at the Stanford Center for Ocean Solutions, Stanford University, and was a Postdoctoral

Research Scholar at the University of California at Santa Cruz, USA.

Lisa has received several prestigious individual fellowship awards recognising her excellence in conducting transformative physical geography research, including the H J Wiens Memorial Award for Scholarship in Landscape Ecology and a National Science Foundation Geography and Spatial Sciences Award.

She has a research record of high-quality international publications, including a recent publication she first-authored in the journal, *Science*, on 'Managing Mining of the Deep Seabed', that received significant international media coverage (eg *Washington Post*, *Science Daily*, *CNBC*, *The Japan Times*).

Lisa's overall approach to research and environmental problem solving has been built on a commitment to link scientific findings directly to policy. Her research weaves together theoretical approaches from the disciplines of landscape ecology and conservation biology and she applies a suite of geospatial analytical tools and techniques to address ocean issues. Her current research focuses on combining remote sensing and analytical tools to track rapid change in Arctic and Pacific Island coral reef ecosystems to help identify risks of potential tipping points and illuminate ocean policy solutions.

Student news

The trip to India will have a lasting effect on me

PHOEBE SLOPER (ENGINEERING SCIENCE, 2018)

Engineers without Borders Oxford (EWBOx) is a student society founded with the aim of tackling global poverty through education and engineering. This year's India project aims to improve the lives of students in rural India by inspiring them to pursue an advanced degree in engineering or a related field in science. For this purpose, we travelled to rural Karnataka in a group of seven and offered interactive teaching and hands-on workshops for one week. All 170 students who attended were from governmental schools and would not otherwise have had the opportunity to be exposed to such topics. The project is organised in collaboration with Professor KPJ Reddy from the Indian Institute of Science (IISc), Bangalore – the leading research institution in India. Therefore, I also had the unique opportunity to visit the IISc and build academic connections with some of the brightest researchers in India.

The workshops we ran in India this year included Climate Change, Robotics, Binary, Water Rockets, and DC Motors. I independently designed and ran a successful workshop focused on global warming and sustainable technology. I did experiments that taught the children about the greenhouse effect, and building projects such as a solar car and water turbine to raise the children's awareness and understanding of alternative energy sources. This practical style of teaching is rarely used in governmental schools in India, so the children gained more from our workshops than I was expecting. Over the week, we saw huge improvements in their teamwork, and practical and problem-solving abilities.

I also ran debating tasks where we discussed the children's thoughts and opinions on global warming and how we should move forward as a society, particularly in India. This was extremely challenging at first because the students were not used to being asked questions or to think for themselves, but eventually it was my favourite activity. I gained many insights into their beliefs and saw their passion and interest; some even came up with new



designs of renewable energy sources such as energy collecting roller-skates.

The Worcester college travel grant was extremely useful to me and primarily helped in paying for teaching materials and living costs while in India. I gained so much from this experience, learning how to communicate with the students effectively (some had very limited English) and develop teaching skills. I learned about Indian culture and felt privileged to be able to connect with the community in Gauribidanur. This trip will have a lasting effect on me; I have become more involved with EWBOx and help organise the Youth Outreach Team. We hope this project can grow so that next year we can have a larger impact. We would be very grateful for any donations to Engineers Without Borders Oxford, which would help us to reach a larger number of students in Karnataka.

If you are interested in donating please contact president@ewbox.org; Website: www.ewbox.org



Women's rugby is kicking off

RUBY JAMES (THEOLOGY, 2017) TELLS US MORE

Women's rugby at Worcester is a new phenomenon and it is with great pride that I can say it is really taking off. It was only last year that a group of female students began chucking around a rugby ball every Sunday before brunch and soon we were hooked.

We decided to elect a Captain, Vice-Captain and Social Secretary and, to my delight, they chose me as Captain. I knew from the kick-off that I wanted to introduce the girls to contact rugby, but faced a rather big problem having never played the game myself!

I set out to learn everything I could as quickly as possible. I went to development sessions at the Iffley Road sports complex, encouraged some of the girls to join me and set up weekly training sessions. Soon, we had more than 20 students signed up and ready to play in the University's first ever full-contact women's rugby match.

Worcester Ladies recently competed in the women's rugby Cuppers, which involved a series of rugby sevens matches. Despite being knocked out in the early stages, we are so proud that Worcester was one of only three

colleges able to field their own team as the other teams drew players from a number of colleges.

Another highlight for me personally was being selected for the Women's Blues squad in the BUCS (British Universities & Colleges Sport) Vase semi-final match, particularly as we came away with a victory of 12 points to 10 against Birmingham. I come from a rugby-loving family, but, until recently, it was never a sport that I had really considered playing. I am so glad that it is now a part of my life and can confidently say that the other girls would agree. We are going from strength to strength, and we hope that women's rugby at Worcester will continue for many years to come.

The College is hugely grateful to Matthew Taylor (Classics, 1973), who for some years has supported the Worcester Men's rugby team, providing them with a new team strip each year. He is now doing the same for the Worcester Ladies' team. Matthew is a great supporter of the College, serving on a number of Committees, most recently Finance. In addition, he has funded a number of projects in College, including a fund he set up in support of students.

Awards and Prizes



Will Harmer (Music, 2018) was chosen by the BBC to mark the 50th anniversary of the Apollo 11 moon landing of July 1969 – even though the historic event took place long before he was born. Will was invited to compose a piece of music inspired by the landing and came up with 'Voyage of the Soul', which

was broadcast on BBC Radio 3 on Thursday 22nd August. He had the opportunity to work with the BBC singers in two workshops and a two-day recording session at the BBC's Maida Vale Studios, with the British composer Errollyn Wallen acting as his mentor. The conductor was Anna Lapwood, also known as a BBC presenter and Director of Music at Pembroke College, Cambridge. Will was awarded this amazing opportunity after winning the BBC Proms Inspire Young Composer Competition in 2017 with his orchestral composition, 'The Whole Heaven on Fire', which was performed last year by the Aurora Orchestra conducted by Nicholas Collon.



Julia Alsop (Music, 2016) was selected for one of the Vice-Chancellor's Social Impact Awards 2019, presented every year to Oxford University students who show exceptional achievement and commitment to positive social change. Julia co-chairs the Oxford Student Union Disabilities Campaign.



Tom Gardiner (Medicine, 2013) was recognised by the charity upReach at a national awards ceremony at the House of Lords. He received the Biggest Champion of Social Mobility award for his work to help others access higher education.

Cricket Cuppers Victory

Worcester secured this year's cricket Cuppers, the 20-over knockout competition in Trinity term between the college cricket teams. Led by captain, Thomas Oliver, it was a tight contest but Worcester scraped a 12-run win over Keble. Worcester scored 135-4 and Keble were 123 all out.





events

COLLEGE

Thursday 19th September 2019

50th Reunion

A drinks reception and black-tie dinner in Hall for those who matriculated in 1969.

Friday 20th September - Sunday 22nd September 2019

University Alumni Weekend

A programme of lectures and presentations. For details, please visit www.alumni.ox.ac.uk. To book College accommodation, please contact: omevents@worc.ox.ac.uk

Saturday 5th October 2019

College Gaudy for those who matriculated in 1977, 1978, 1979, 1962 and earlier

Wednesday 6th November 2019

New York Reception

Barrie and Deedee Wigmore will be hosting a reception in New York at which the Interim Provost Professor Kate Tunstall, will be attending.

Monday 18th November 2019

Worcester College Society Annual Dinner

To be held at the Oxford and Cambridge Club, London. An opportunity to meet the newly appointed Interim Provost, Dr Kate Tunstall.

UNIVERSITY

Thursday 12th December 2019

Varsity Rugby at Twickenham

Saturday 14th March 2020

Law Dinner

For all those who read or are practising Law. Personal invitations to follow.

Saturday 21st March 2020

College Gaudy for those who matriculated in 1980, 1981, 2008 and 2009

Friday 3rd April - Saturday 4th April 2020

Celebrating 40 years since women were first admitted to Worcester

A weekend programme of events to celebrate the 40th anniversary. Details will follow.

Friday 17th April - Saturday 18th April 2020

US Reunion in New York

2020 Meeting Minds: Alumni Weekend in New York! Worcester will be hosting a drinks reception for Old Members and their guests on the Saturday evening.

Saturday 13th June 2020

Benefactors' Garden Party

Keep checking our website for further details at:

www.worc.ox.ac.uk/alumni

Events information and booking

www.worc.ox.ac.uk/alumni/events • Email: omevents@worc.ox.ac.uk • Tel: +44 (0) 1865 278346



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