BLUEPRINT



Staff magazine for the University of Oxford | **November 2013**

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News in brief

- ♦ The inaugural Oxford China Lecture will take place on 10 December in Shanghai. Entitled 'The Future City', the lecture will be given by Steve Rayner, James Martin Professor of Science and Civilization, who will discuss whether we can create cities that can reflect 21st-century needs and how cities can help solve the seemingly intractable problems of climate change and resource scarcity. The Oxford China Lecture builds on the annual Oxford London Lecture series, established in 2011, and aims to connect the widest possible audience to some of Oxford's ground-breaking research. Details at www. ox.ac.uk/oxfordchinalecture2013.
- ♦ Links between Oxford and Burma were strengthened last month when the Vice-Chancellor met with Aung San Suu Kyi to discuss a number of projects designed to help revitalise academic and student life in the south-east Asian state. Daw Suu laid down the challenge when she received her honorary degree from Oxford in June 2012. Since then talks have been taking place over a series of projects, including a training programme for the leaders of Rangoon University that will help the institution plan its ongoing redevelopment.
- ♦ The Weston Library (formerly the New Bodleian Library) has entered the final phase of its three-year redevelopment. The building is undergoing a major refurbishment and will officially reopen in March 2015, though accessible to readers from October 2014. Redevelopment includes the rebuilding of the bookstack and the creation of new internal spaces, from additional reading rooms to exhibition galleries and a digital media centre. More at www.bodleian.ox.ac.uk/weston.
- Oxford has some of the most iconic architecture in the world, from the Radcliffe

- Camera to the Bodleian, and images of Oxford are in high demand among publishers, the press and the public. To reflect this, the University's online image library has opened to external users, making it the first commercial university image library in the UK. Containing over 5,500 photographs as well as a range of video clips, Oxford University Images offers quick and easy access to a rich collection of images, from the Oxford skyline to student life. Access the library at www. oxforduniversityimages.com.
- ◆ Did you know the University comprises 235 buildings, ranging from the Divinity School (1424) to the Andrew Wiles Building (2013), the new home of the Mathematical Institute? The key principles for developing the University's estate over the next five years and beyond are set out in the University's Estate Strategy 2013–18. One of a number of enabling strategies that support the University's Strategic Plan, it reflects the key challenges facing the University in terms of estate planning, outlines future developments, and highlights issues around sustainability. A summary is at www.admin. ox.ac.uk/estates.
- ♦ Are you a researcher who's keen to broaden their professional and social network? The Oxford Research Staff Society (OxRSS) is a cross-divisional society which launched in July. It aims to hold regular networking events to allow researchers to meet, discover common interests and find out about research and social groups. It also acts as a collective voice for the Oxford research community, helping ensure that research staff are represented on appropriate University committees and decision-making bodies. For details, visit www.oxrss.ox.ac.uk.







FROM TOP: DAW SUU IN DISCUSSIONS; BUILDINGS GALORE; OXFORD GOES TO SHANGHAI



♦ In search of unusual Christmas presents? The University of Oxford shop offers a festive gift collection, featuring items commissioned exclusively for the shop and made in the UK, from baubles to bags. The High Street shop will be open until 7pm every Thursday in December, when you can enjoy a 20% discount (double the usual staff discount). To take advantage of this offer, show your University Card prior to purchase. You can also enjoy the 20% discount at www. oushop.com − enter the code OUstaff20 at checkout.



Research round-up



- ◆ A University classicist is bringing back to life the music of ancient Greece, unheard for thousands of years. Dr Armand D'Angour, Fellow and Tutor in Classics at Jesus College, has embarked on a two-year research project, part-funded by the British Academy, to reconstruct the songs and music of the classical world. Piecing together the lyrics, rhythms, instrumentation and notation through the painstaking study of ancient documents, he aims to show that the music is not lost beyond recovery. Dr D'Angour says: 'Suppose that 2,500 years from now all that survived of the Beatles' songs were a few of the lyrics. Imagine if we could then reconstruct the music and hear the words once again in their proper setting. This is about to happen with the classic texts of ancient Greece.'
- ♦ A 20% tax on sugary drinks could see 180,000 fewer obese adults in the UK, researchers at the Universities of Oxford and Reading have estimated. The impact on obesity is likely to be much greater in younger adults who drink more soft drinks, they write in the British Medical Journal. A 20% tax would put around 12p on a 330ml can of fizzy drink from a supermarket, or about 40p on a 2 litre bottle. A typical sugary drink can contain anywhere from 6 to 15 teaspoons of sugar. According to Dr Adam Briggs of the British Heart Foundation Health Promotion Research Group at Oxford: 'Such a tax is not going to solve obesity by itself, but we have shown it could be an

- effective public health measure and should be considered alongside other measures to tackle obesity in the UK.'
- Forests with dense canopies such as Wytham Woods can partially shield groundlevel plants from the local effects of global warming, reports a study in Proceedings of the National Academy of Sciences. As the planet warms, the general trend is for species adapted to survive at higher temperatures to thrive at the expense of those better-suited to colder climates. But when researchers compared plant species in 29 forests across the past few decades, they found that thick forests including Wytham Woods can slow, halt or even reverse this effect. 'We believe that the effect of the tree canopy is to moderate changes in temperature at the lower levels in the wood - particularly where woods have been becoming denser and shadier in recent years,' explains Dr Keith Kirby from the Department of Plant Sciences.
- ◆ Tiny self-assembling transport networks, powered by nano-scale motors and controlled by DNA, have been developed by Oxford physicists. The system can construct its own network of tracks spanning tens of micrometres in length, transport cargo across the network and even dismantle the tracks. Researchers were inspired by the melanophore, used by fish cells to control their colour. Tracks in the network all come from a central point, like the spokes of a bicycle wheel. Motor proteins transport

pigment around the network, either concentrating it in the centre making the cells lighter, as the surrounding space is left empty and transparent), or spreading it throughout.

The similar Oxford system is built from DNA and a motor protein called kinesin. Powered by ATP fuel, kinesins move along the micro-tracks carrying control modules made from short strands of DNA. 'Assembler' nanobots are made with two kinesin proteins, allowing them to move tracks around to assemble the network, whereas the 'shuttles' only need one kinesin protein to travel along the tracks. The study used fluorescent green dyes as cargo, but the same methods could be used to speed up chemical reactions by bringing compounds together at the central hub.

◆ A study, led by Dr Lucie Cluver from the Department of Social Policy and Intervention, has identified that government grants in Southern Africa can reduce HIV risks for teenage girls. The longitudinal study, published in The Lancet Global Health, interviewed 3,515 young people between 2009 and 2012, with 97% follow-up in four urban and rural areas of two South African provinces. They found that teenage girls from households receiving grants were two-thirds less likely to take much older boyfriends, and half as likely to have sex in exchange for money, food, school fees or shelter. The findings have major implications for HIV prevention: government grants in South Africa have expanded massively and currently reach about 70% of eligible children, but, if all those eligible were reached, 77,000 new relationships of teenage girls with sugar daddies could be prevented each year. The findings are particularly significant at a time when many sub-Saharan African countries are considering the introduction of social welfare systems.



ALL ABOARD? GREEN DYE-CARRYING SHUTTLES ON A 'NANOTRAIN' NETWORK



For more information, visit www.ox.ac.uk/news and www.ox.ac.uk/staffnews

PFOPLE AND PRIZES



Dr Ivan Ahel has been awarded a 2013 Future Leaders in Cancer Research Prize by Cancer Research UK in recognition of his research into DNA damage, and for

the quality of his biochemical work and publication record.



Dame Valerie
Beral, Professor
of Epidemiology
at the Cancer
Epidemiology
Unit, has been
selected as the 2013
recipient of the
American College

of Epidemiology's Outstanding Contribution to Epidemiology Award.



Alastair Buchan, Head of the Medical Sciences Division and Professor in Stroke Medicine, has been elected an Honorary Member of the American

Neurological Association for his unique contributions to neurology and neurological sciences.

Luciano Floridi, Professor of Philosophy and Ethics of Information at the Oxford Internet Institute and Fellow of St Cross College, has been elected as a corresponding member of the Académie Internationale de Philosophie des Sciences.

John Furlong, Emeritus Professor of Education, has been appointed to the expert panel reviewing teacher training infrastructure in Northern Ireland.

Alan Hudson, Director of Leadership Programmes for China, has recently been awarded the Shanghai Magnolia Gold Award by Mayor Yang Xiong for outstanding contributions to the city. He is responsible for writing the curriculum training programmes in UK public policy and public administration which have been delivered by the Department for Continuing Education to over 1,000 senior Chinese public officials at municipal, provincial and national level.



Catriona Kelly, Professor of Russian and Fellow of New College, has been elected as President for 2015 of the American Association for Slavic, East European, and

Eurasian Studies – the first time that a scholar not working at a US university has been elected.

Martin Maiden, Professor of the Romance Languages and Fellow of Trinity College, has been awarded an honorary doctorate by the University of Bucharest in recognition of his work in promoting Romanian Studies.



Gero Miesenböck, Waynflete Professor of Physiology and Director of the Centre for Neural Circuits and Behaviour, is one of three researchers to share

Brandeis University's 16th Annual Jacob Heskel Gabbay Award in Biotechnology and Medicine. The three are recognised for their contributions to the discovery and applications of optogenetics, a technology that allows scientists to control the brain's activity by genetically engineering neurons to fire in response to light.



Tony Venables, BP Professor of Economics and Director of the Oxford Centre for the Analysis of Resource Rich Economies, has been elected to the

Council of the British Academy.

New research fellows

Nine Oxford academics have recently been awarded Royal Society University Research Fellowships. The scheme aims to provide outstanding scientists, who have the potential to become leaders in their chosen fields, with the opportunity to build an independent research career.

They are: Dr Andrew Angel (Mathematical modelling of gene regulation); Dr Alfonso Arturo Castrejon-Pita (Liquid droplet generation and deposition); Dr Sofia Gripenberg (Plant-eating insects and the structure of tropical plant communities); Dr Stefan Kiefer (Quantitative analysis of infinite-state systems); Dr Joshua Nunn (Scalable photonics via ensemble atomic Raman scattering); Dr Andrew O'Bannon (Strong coupling, strange transport, and holography); Dr Brian Patton (Imaging



deep tissue neural processes with nanodiamond); Dr Simon Walker, pictured left, (Biomechanics of the insect flight motor); and Dr Stanislav Živný

(Optimisation of separable functions).

In addition,
Dr Ana Marques,
pictured left,
(Mechanisms of
intergenic long
non-coding RNAs
in homeostasis
and disease) has
been made a Royal

Society Dorothy Hodgkin Fellow.

Excellent teachers

Thirty-four Teaching Excellence Awards were presented by the Vice-Chancellor this year, together with eight grants to support projects to develop new courses or new approaches to teaching and learning. The awards acknowledge outstanding contributions from teachers and also from the librarians and IT and support staff whose work supports the University's high teaching standards. Details at www.ox.ac.uk/news.

GREAT INVESTORS

The Finance Division has been awarded an Investors in People accreditation for improved performance and realising objectives through the effective management and development of its people – the first department in the University to achieve the accreditation. The division is now planning to achieve silver status by 2015.

Leverhulme prizewinners

Two Oxford researchers have been awarded 2013 Philip Leverhulme Prizes. The £70,000 awards recognise early-career academics with exceptionally promising futures whose work has already had a significant international impact.



Dr Anna Lora-Wainwright, of the School of Geography and the Environment and the School of Interdisciplinary Area Studies, will use the award to further her research mapping the

evolution of what constitutes a 'good life' for Chinese villagers; their ambivalence towards urbanisation and industrialisation; and the perceived importance of health, a clean environment and development.



Dr Hannah Sullivan, of the Faculty of English Language and Literature, researches 19th-and 20th-century English literature, especially modernism and literary style and form. She intends to

work on a non-semantic version of 'distant reading' - working with a programmer and a large corpus to investigate, for example, what the most common stanza form was in poems published in 1880, or what percentage of poems in 1910 used iambic pentameters.

Appointed to the oldest chair in London



Dr Belinda Jack, of the Faculty of Modern Languages and Official Student and Tutor in French at Christ Church, has been appointed as the 47th Professor of Rhetoric at Gresham College, London's oldest higher education institution.

The chair was created at the foundation of the College in 1597, when Rhetoric was considered to be one of the seven subjects essential to a well-rounded gentleman's education (alongside Astronomy, Divinity, Geometry, Law, Music and Physic). Its holder

gives a series of free public lectures - though they are no longer required to deliver these in Latin as well as English - and Professor Jack's theme will be 'The Mysteries of Reading and Writing'. Previous holders of the post include Nevill Coghill, Stephen Spender and Cecil Day Lewis.

Intelligent spectacles see into the future

Dr Stephen Hicks, Research Fellow in Neuroscience and Visual Prosthetics, has been awarded a Royal Society Brian Mercer Award for Innovation. Dr Hicks has developed a novel technology that makes use of a visually impaired person's residual vision to allow them to navigate freely and confidently. His 'smart glasses' (prototype pictured) use cameras and software to detect nearby objects and project them in a simple and intuitive way onto the lenses of a pair of glasses.

The £50,000 prize will be used to develop the new software needed to include object and text recognition features in the glasses, including audible descriptions of nearby signs and objects.



Don't be a target



The rapid rise in the amount of data and the number of mobile devices we use on a daily basis means that information security is now an issue that affects us all. By failing to protect our personal details we risk falling victim to cybercrime or identity theft, while failing to protect the details of others, such as patient identifiable data, could result in criminal prosecution.

Taking a few simple measures will help you stay secure online and prevent you from becoming another cybercrime statistic. These range from choosing strong passwords to using encrypted memory sticks for sensitive data and updating your anti-virus software regularly.

The University's Information Security website (www.it.ox.ac.uk/infosec) provides a wealth of information about protecting yourself online. From how to spot phishing scams to using privacy settings in social

media sites such as LinkedIn, it offers advice which applies to both your work and home life.

The site also profiles the range of training available. For a general overview, sign up to 'You are the target!', a one-hour course that describes why your personal information is valuable, how it may get into the wrong hands, and practical measures to reduce the risk of data theft. Subject-specific courses are also on offer, from creating secure passwords to sharing documents in the cloud.

New this term is an online course on information security awareness. The 45-minute module, which you can complete at work or at home, aims to equip University staff with a greater understanding of the common risks associated with handling data and working online. To find out more, visit www.it.ox.ac.uk/infosec.

VINERIAN PROFESSOR OF ENGLISH LAW



Hugh Collins, Professor of English Law at the London School of Economics and Political Science, took up this post in the Faculty of Law on 1 October. He also became a Fellow of All Souls College.

Professor Collins' chief areas of interest are employment law and human rights law, contract and commercial law, and legal theory. Visiting professorships have included posts at New York University Law School and Boston University Law School, and he has served as a member of the editorial committee of *The Modern Law Review* since 1991, and as a founder and editor of the *European Review of Contract Law*. He was elected a Fellow of the British Academy in 2006.

PROFESSOR OF EXPERIMENTAL PHYSICS

Ian Shipsey, Julian Schwinger Distinguished Professor of Physics at Purdue University, USA, took up this post in the Sub-Department of Particle Physics on 1 October. He is also a Fellow of St Catherine's College.

Professor Shipsey is an experimental particle physicist whose research focuses on quarks and the Higgs Boson, the search

Noticeboard



♦ Stephen Rouse has been appointed Head of the News and Information Office in the Public Affairs Directorate.

Stephen has been handling news media at the University of Cardiff for several years, and has also been overseeing the preparation of that institution's REF impact case studies. His earlier journalistic career included news editor of the *Journal*, the leading daily newspaper in Newcastle. He is an Oxford alumnus and an ex-editor of *Cherwell*. He will take up his new post mid-January.

♦ Dr Guy Thwaites has been appointed Director of the Wellcome Trust's Vietnam Research Programme and the Oxford University Clinical Research Unit in Vietnam. He will also carry out clinical research on tuberculosis and brain infections as part of his academic appointment with the Nuffield Department of Medicine.



for dark matter and the study of dark energy. He chairs the Collaboration Board of the Compact Muon Solenoid Experiment at the Large Hadron Collider at CERN, is a member of the Board

of Directors of the Large Synoptic Survey Telescope Corporation, and was formerly the co-coordinator of the LHC Physics Center at the US's Fermi National Accelerator Laboratory (Fermilab).

Professor Shipsey, who has received several awards for outstanding teaching at Purdue, is profoundly deaf. He has given over 60 colloquia and talks to the public on hearing, cochlear implants and perception since a cochlear implant restored his own hearing.

PROFESSOR OF EGYPTOLOGY



Richard B Parkinson,
Assistant Keeper
(Curator) in the
Department of Ancient
Egypt and Sudan,
The British Museum,
has been appointed
to this post in the
Faculty of Oriental

Studies. He took up the post on a 20% basis on 1 October and will become full time on 1 January. He is also a Fellow of The Queen's College.

Professor Parkinson's research interests centre round the interpretation of ancient Egyptian literature, especially the poetry of the classic age (1940–1640 BC). As well the philological study of manuscripts, he works on material contexts, actors' perspectives, literary theory and modern receptions in literature, art and film. He is also interested in issues of performance practice, cultural power and LGBT history.

Professor of Microbiology



Susan Lea, Professor of Chemical Pathology in the Sir William Dunn School of Pathology, Tutorial Fellow in Biochemistry at Brasenose College and Co-Director of the James Martin Vaccine

Design Institute, took up this post in the Sir William Dunn School of Pathology from 1 October. She also became a Fellow of Wadham College.

Professor Lea's research interests focus on structural biology to aid understanding of host–pathogen interactions; innate immunity, especially the Complement system; and pathogen evasion of host immunity, particularly serum-dwelling spirochaetes.

WOOD PROFESSOR OF FOREST SCIENCE



John MacKay,
Professor of Forest
Sciences at Université
Laval, Québec,
Canada, took up
this post in the
Department of Plant
Sciences on 1 October.
He is also a Fellow

of Linacre College.

Professor MacKay's research focuses on the molecular regulation of wood formation and the genetics of wood properties in softwood (spruce, pine) and hardwood trees (poplars), through investigations that encompass gene discovery, functional genomics, association studies and quantitative genetics. Current activities also include genome sequence exploration with next-generation sequencers, and research outcomes include applications in tree breeding (gene-base selection) and biotechnology.

PROFESSOR OF THE STUDY OF THE ABRAHAMIC RELIGIONS



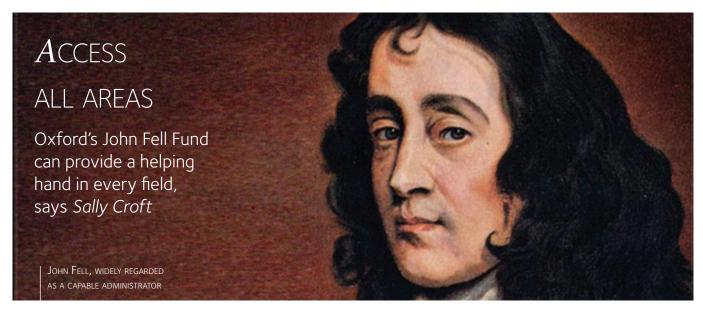
Carlos Fraenkel, Associate Professor in the Departments of Philosophy and Jewish Studies at McGill University, Montreal, Canada, took up this post in the Faculty of

Theology and Religion on 1 October. He is also a Fellow of Lady Margaret Hall.

Professor Fraenkel's research interests span ancient philosophy, medieval philosophy (mainly Jewish and Islamic) and early modern philosophy (mainly Spinoza). He is also interested in political philosophy, particularly questions related to cultural difference, identity and autonomy. His most recent book is *Philosophical Religions from Plato to Spinoza: Reason, Religion, and Autonomy* (Cambridge University Press, 2012).

$V_{\mathsf{IEWFINDER}}$ found

These three mosaic scenes (p20) from the life of Christ can be found in Keble College Chapel. They were designed by William Butterfield and show (from left to right) The Annunciation to Mary, The Nativity (or Adordion), and The Baptism of Christ. In the Nativity scene, the Angels hold a banner proclaiming 'Glory to God in the highest — On earth peace and good will toward men'.



What do the following have in common: the 'Wildcat' driverless vehicle; a conference on the global significance of Abraham Lincoln; a study of pain pathways in the developing spinal chord; the digitisation of early printed ballads held in the Bodleian; the treatment of depressed adolescents; and an investigation into the effects of broadband in East Africa? Answer: all these areas of Oxford research have benefited, at an early stage, from funding provided by the John Fell OUP Research Fund.

The John Fell Fund is unique to Oxford. Since 2006, Oxford University Press (OUP) has transferred £5m per year to the Fund, which is named for John Fell, Dean of Christ Church, Vice-Chancellor of the University (1666–69), Bishop of Oxford and 'father' of the modern Press.

The Fund is intended to foster creativity and a proactive approach to research opportunities across all subject areas; applications from interdisciplinary fields are particularly welcome. The Fund makes seedcorn and start-up grants, and aims to stimulate applications to external agencies by providing the staff and funds to get projects off the ground.

It is also one means of supporting key strategic aims within the University, which include developing global reach and promoting interdisciplinary collaborations. Awards have been made for the Oxford–Princeton partnership, for instance, which seeks to deliver mutually selected projects undertaken jointly by academics at both institutions.

'Any employee of the collegiate University who holds an academic post or a competitively awarded research fellowship can apply,' says Jenny Nix, Secretary to the John Fell Committee. 'Applicants must hold a post that includes responsibility for developing their

own independent research.' Awards are made for six purposes:

- Pump-priming for innovative projects and proof-of-concept work that is currently at too early a stage to put to an external sponsor;
- Start-up funds for early-career researchers (within their first five years in post at Oxford);
- Other academic activities likely to lead to new research initiatives, such as a seminar series or international interactions;
- Research facilitators to encourage and assist with the preparation of bids to external sponsors;
- Support relating to bids for external funding (eg matching funds);
- ◆ Strategic investment for projects needing over £100k towards the cost of equipment.

'On average, Fell Fund awards are leveraging other funding at a ratio of up to 1:7'

'There are three award streams within the Fund,' explains Emma Toward, the planning officer in the University's Planning and Resource Allocation Section (PRAS) who handles applications. 'Main awards, which are over £7,500; small awards, for sums less than this; and, in addition, a budget of £250k is set aside for each of the four academic divisions to meet special divisional priorities.'

Each division has different priorities.

'Generally speaking, researchers in the
Humanities and Social Sciences Divisions
tend to receive larger numbers of smaller
awards and the divisions put their own special
allocations into, for instance, providing
matched funding for Leverhulme Early Career

Research Fellowships,' says Jenny Nix. 'In MPLS and Medical Sciences, there tends to be a smaller number of applications but for larger grants, and the divisions use their special allocations primarily towards matching external grant applications and the provision of high-spec laboratories for incoming senior researchers.'

The Fund has made over 1,300 awards so far, ranging in size from £200 to £500,000. 'Success rates are pretty good – around 50% for pump-priming, early-career and other academic activities,' says PRAS administrative assistant Liam Murphy. 'Tracking awards through our system of final reports on each project also shows us that leveraging is working well. On average, Fell Fund awards are leveraging other funding at a ratio of up to 1:7.'

Applicants also appreciate the short turn-round time. There are three application deadlines, one at the start of each term. Each application needs to be approved by the applicant's department, then a divisional committee reviews and prioritises all applications from the division. The John Fell Committee, which is chaired by Professor Ian Walmsley (Pro-Vice-Chancellor for Research and ASUC) and includes two members from each division, makes the final decision. All in all, the process takes about a term. An online application process is under development and is expected to be operational early in 2014.

Beneficiaries of the John Fell Fund featured in this issue of *Blueprint* include the *Dictionary of Medieval Latin from British Sources* (pp10–11) and the 'intelligent spectacles' for partially sighted people for which Dr Stephen Hicks has just won a Royal Society innovation award (p5). He applied for a Fell Fund award in August 2010. 'The John Fell Fund was an important source of funding as it allowed us to try out our initial ideas,' he says. 'The timing was superb and without it we would have had to push the project back at least 12 months.'



For further information see www.admin.ox.ac.uk/pras/jff



Many lavish annual dinners take place under the vaulted halls and towering spires of Oxford's colleges. Not every dinner, however, has been taking place for at least five centuries - and possibly as many as seven and a half. Balliol College's patronal feast - its yearly celebration in honour of its patron saint, St Catherine of Alexandria - may well go all the way back to the foundation of the college, which is now celebrating its 750th anniversary year. And when St Catherine's Day (25 November) came around this year, it was another landmark event for a tradition that hearkens so far back that some of its earliest history is written in Latin in ancient parchment-bound account books.

Dr John Jones, Emeritus Fellow of Balliol and author of the most extensive account of the college's history, says that in the middle of the 16th century the college feast was 'bigger than Christmas or Easter'. Delicacies from distant lands were brought in, and phenomenal amounts were spent – the dinner cost more than ten shillings, a small fortune back then – and oysters, peacocks and almonds (then a rarity) decked the tables.

For most of its history, the dinner was an event closed to all except the fellows and various grandees of the college. Only at the comparatively late date of 1897 did E J Palmer – briefly a Balliol fellow before he became Bishop of Bombay – suggest that undergraduates might also be invited. And so the modern form of the ancient tradition commenced, with the hall thrown open to

as many people as could be fed in style. Nowadays, undergraduate and graduate finalists normally attend, allowing each Junior Member the opportunity to celebrate the patronal feast once in their time at Balliol.

The documents that Balliol has kept relating to its feast portray the way it has evolved. In the 1930s, endless pages of correspondence between the Bursar's office and various High

'In the middle of the 16th century, the college feast was bigger than Christmas or Easter'

Street shops chronicle the attempt to negotiate hiring a newfangled microphone for less than seven guineas. And notes that read like liturgical orders of service specify the exact sequence in which the Master was to make the ritual toast of 'Floreat Domus!'; the staff to bring in dessert and cigars; and a Grace Cup (also known as The Loving Cup) – mostly claret, with a dash each of cloves, Curaçao and cherry brandy – to be passed around (although this last tradition no longer takes place).

The dinner has always featured a guest

speaker, often a Balliol alumnus; the list of names reads like a *Who's Who* of intellectuals in 20th-century Britain. The diplomat and writer Harold Nicolson and the economic historian Arnold Toynbee were featured back to back; one year, the college invited the Archbishop of York alongside economist and social reformer William Beveridge – a combination which was, unfortunately, precluded by the Archbishop's unavailability. Dr Jones recalls that in his days as a Balliol undergraduate, Prime Minister Harold Macmillan attended and spoke movingly about President Kennedy's assassination.

But he also notes that the dinner is as prominent in his memory for decorum as for a little bit of licensed silliness such as sending the traditional sung insults to Trinity College – called 'the Gordouli' – over the wall. Indeed, notes from the Bursar in 1957 request that the Head Scout try to dissuade the younger college members from singing during the passing of the Grace Cup. Not all such displays could be chalked up to extreme youth, however. Jones admits: 'I confess that in my first term as a junior research fellow, at the age of 24, I stood on a seat under Trinity's wall and conducted a rousing rendition of the Gordouli myself after the dinner.'

Balliol's association with St Catherine, patron saint of scholars, is described in detail at http://archives.balliol.ox.ac.uk/Exhibitions/exhib05.asp





DICTIONARY EDITORS' TRAY, USED FOR SORTING SLIPS ACCORDING TO
MEANING, WITH EACH WORD, SENSE OR SUBSENSE GIVEN A SEPARATE SLOT
UNTIL THE GROUPINGS BECOME CLEAR AND DEFINITIONS CAN BE WRITTEN

A VITAL AND ELEMENTARY RESOURCE

Nurtured by the Bodleian and the Classics Faculty, the complete *Dictionary of Medieval Latin from British Sources* is finally here, *Matt Pickles* explains

On 6 April 1913 a Mr Robert J Whitwell had a letter published in *The Times*, in which he called for volunteers to help compile a new dictionary of the Latin used in medieval times. By the end of this current year – a century after Whitwell's original appeal – the last instalment of the *Dictionary of Medieval Latin from British Sources* (DMLBS) will be published.

Latin in the medieval era was not spoken as a native language, but commonly used for writing. A selection of the huge quantity of surviving source material, written between the years AD 540 and 1600 by thousands of authors who were born or worked in Britain, is the basis for the dictionary. The sources cover many topics, from religion to science to war. The dictionary records the meanings and uses of more than 58,000 Latin words identified from these sources, many known from classical Latin but many newly coined by the medieval Latin writers.

A few years after Whitwell's proposal, the decision was taken to produce dictionaries recording the use of medieval Latin in countries across Europe. After years of discussion and the accumulation of source material, work began in earnest on the DMLBS in 1967 as a research project of the British Academy. The first part or 'fascicule' of the dictionary, covering the letters A and B, was published in 1975. Over time, the project moved to the Bodleian Library and was eventually adopted by the Classics Faculty.

The fate of many of the sister dictionary projects across Europe is testament to the difficulty of the task of keeping a project going over decades. Some dictionaries folded after a few years without finishing. The Polish dictionary is on the letter 'S', the Czech on 'M', and the German on 'H'. 'Many people involved with the project, myself included, did not believe we would ever get to the letter Z,' says the DMLBS's current editor Dr Richard Ashdowne. 'In recent years we have had to apply for renewed funding every few years - an unsuccessful application would have brought the dictionary to a premature end. We decided the best way to guard against this was to find a way to speed up the process while not undermining the quality of the scholarship.'

This was done by introducing XML technology in 2010. Before then, publishing the dictionary was very labour-intensive. Definitions and quotations were written by hand on slips of paper, which would then

be typed up. The typescripts were checked, revised and typeset, first as galley proofs in individual columns and then as three-column pages. 'Within a year we transformed the design and printing process, and we were able to clear our long backlog of prepared slips that had been built up by many previous years of steady research,' says Dr Ashdowne. 'The dictionary team can now research and prepare entries more efficiently and accurately than could ever have been imagined by Whitwell.'

Crucial in the history of the dictionary has been the help of volunteers. 'Like the *Oxford English Dictionary*, the DMLBS is one of the early examples of a crowd-sourced project,' says Dr Ashdowne. 'The list of individuals who have served the dictionary over the years is long, running into several hundreds. The majority of these were volunteers who read source material to identify examples of each

'Like the OED, the DMLBS is one of the early examples of a crowd-sourced project'

meaning of each word.' Volunteers all had a good grasp of Latin, but they came from very different backgrounds. One was Colonel Drew, a First World War hero who never went to university but was an expert on the history of Hampshire. In more recent years, volunteers have contributed expertise in reviewing the drafted dictionary text before it goes to press. Many of these are retired academics who believe strongly in the project's mission.

The resulting dictionary is a comprehensive, authoritative resource, which is already benefiting scholars and students worldwide in the many disciplines with reason to study medieval Britain. The numbers are impressive: 58,000 entries contain more than 100,000 different senses and approximately half a million quotations. A further 30,000 entries for spelling variants direct readers to the relevant entries. It is one of the British Academy's best-selling titles. 'The DMLBS is a monumental effort, a great example of what can be achieved from a large-scale research project, and its



LIVES AND MIRACLES OF SAINTS, SUCH AS THIS

12TH CENTURY MANUSCRIPT ABOUT ST KENELM,
ARE AN IMPORTANT SOURCE FOR THE DMLBS

legacy will be felt for many years to come,' says Professor Shearer West, head of the Humanities Division.

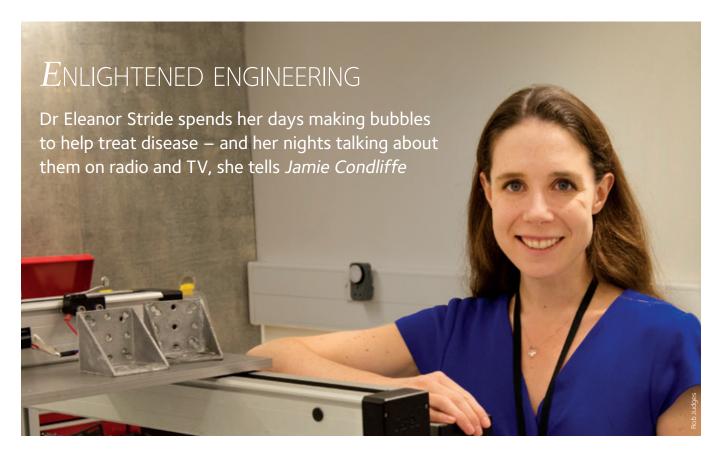
'Users include not only those working in diverse fields within universities (history, linguistics, theology, philosophy, music etc) but also many others, both professional (eg in heritage organisations, archivists, genealogists, lexicographers) and amateur (eg members of local history societies),' says Tobias Reinhardt, Corpus Christi Professor of Latin and chairman of the British Academy's DMLBS committee. 'It is thus a vital and elementary resource, which, given its size and scope, would not be proposed today.'

The process of compiling the dictionary has thrown up some interesting discoveries. For example, the sources confirm that a common modern understanding of the medieval punishment for treason, 'hanging, drawing and quartering', is mistaken. The sentence was last given in 1782 and, since the mid-19th century, 'drawing' has been interpreted as removing the victim's entrails. But Dr Mark Thakkar, one of the assistant editors, says: 'Examination of the medieval sources shows that to draw a criminal ('trahere' or 'tractare') was actually to drag him through the streets behind a horse, usually on his way to be hanged.'

The completion of the DMLBS will be marked by a conference in December, which will be attended by editors from the international dictionaries of Medieval Latin. The project's history will also be narrated in a display in the Bodleian Library. In 2014 the team will disband. 'We've already received our notice,' Dr Ashdowne jokes. The last entry in the dictionary will be *zythum*, 'an Egyptian beer'. Nobody could begrudge the team raising a few glasses this Christmas.



More information at www.dmlbs.ox.ac.uk; exhibition and lecture details at www.bodleian.ox.ac.uk/whats-on



You only need speak to Dr Eleanor Stride – or, for that matter, watch her on TV – to realise that she's a scientist who delights in explaining her work simply. That's perhaps not surprising given how she came to find herself an engineer. I decided as a teenager that I wanted to do engineering,' she explains. 'But really it was with a view to heading to the Royal Academy of Arts to become an industrial designer.'

As with many of the best intentions, though, a true love got in the way of her desire to blur boundaries. 'Come the third year of my engineering degree, I started working on a project with bubbles,' she admits. 'And I became a little... addicted.' That addiction endured, seeing her complete a PhD on how microbubbles can be used in medical ultrasound to help improve contrast in images, then take up a Fellowship at the Royal Academy of Engineering, based at University College London, where she began to design and manufacture bubbles for use in medicine.

If that sounds strange, consider this: drugs are often injected into patients, so they travel through the bloodstream having an effect on the entire body. For many treatments, however, like killing cancer or dissolving blood clots, it's best to target drugs so their effects are localised. Dr Stride's research group, part of the University's Biomedical Ultrasonics, Biotherapy and Biopharmaceuticals Laboratory (BUBBL), is manufacturing microbubbles specifically designed for the purpose. These tiny hollow spheres carry drugs to where

they're required then burst open, delivering pharmaceuticals at a specific point.

Dr Stride arrived in Oxford in 2011 as a University Lecturer at the Institute of Biomedical Engineering, also becoming a Fellow of St Catherine's College. She's been working with – and talking about – bubbles ever since. 'We've recently developed a new kind of magnetic bubble,' she explains. 'They're coated not just with drugs but magnetic nanoparticles. To ensure the bubbles are in the right place at the right time, we can apply a magnetic field and make them cluster

'I started working on a project with bubbles. And I became a little... addicted'

in one spot.' Then, a short burst of highintensity ultrasound – sound with such a high frequency that humans can't hear it – can be focused (from outside the body) on the bubbles, breaking them and depositing the drugs where they're required.

Easy in theory, but making tiny bubbles can be difficult. 'Some will be stable for two seconds, some for two years; some will be loaded with drugs, others will carry very little,' she explains. 'If you're using them in patients, that's a problem.' So her research group spends a lot of time developing new

ways to manufacture them more effectively, from using microscopic channels of liquid to pump out a stream of individual bubbles, to applying ultrasound to create emulsions – essentially, highly scientific froths.

The results, understandably, vary, but her team has developed a technique to keep a check on things. 'We've created the first system to look at a stream of bubbles in real-time using ultrasound and laser beams, so now we know exactly how they're turning out,' she explains. In turn, she hopes to make bubbles that work better for the patients they'll be delivered to.

Dr Stride's simple explanations belie the complexity of her work – but that's because she still manages to blur boundaries as she intended to years ago. 'I was always keen to tell people about the work we were doing,' she explains. 'But what really kickstarted it was a short YouTube video I made while I was at UCL that a lot of people seem to have watched. I'm not exactly sure why!'

From that modest start, she has since given talks across the country, helped raise awareness of women in engineering, provided commentary on the radio and, most recently, appeared in a handful of BBC documentaries. In other words, she's now part engineer, part explainer. 'It's part of the responsibility of being a scientist,' she explains. 'I wouldn't be doing my job properly if I didn't do it.'



For more information visit www.ibme.ox.ac.uk/research/non-invasive-therapy-drug-delivery/people/dr-eleanor-stride

What $^{\prime}$ s on

EXHIBITIONS

Barbara Pym and the Bodleian Until 8 December Bodleian Library, Proscholium

www.bodleian.ox.ac.uk/whatson

Exhibition celebrating the centenary of Pym's birth, with a display of items from her literary papers, including manuscripts of her novel Excellent Women, and letters from other writers.

Beauty, grace and power: the horse in drawings of the Renaissance and Baroque Christ Church Picture Gallery Until 23 December

Tickets £3/£2

www.chch.ox.ac.uk/gallery

Selection of nine Old Master drawings from the Christ Church collection show how 16thand 17th-century artists studied and portrayed the horse.

Great medical discoveries: 800 years of Oxford innovation

Until 18 May 2014

Bodleian Library, Exhibition Room

www.bodleian.ox.ac.uk/whatson

Exhibition telling the story of Oxford's place in the history of medicine, from the medieval period to its current position at the forefront of medical research and clinical practice.

LECTURES AND TALKS

Making sense of big data

Tuesday 3 December, 5pm Oxford Martin School, 34 Broad Street www.oxfordmartin.ox.ac.uk/event/1671

Sir Mark Walport, Chief Scientific Adviser to the UK Government, discusses how we can make sense of the phenomenon of big data in order to reap the benefits.

Reading, writing and the joy of books

Friday 6 December, 5pm

Junior Common Room, Mansfield College

www.mansfield.ox.ac.uk

Talk by Carmen Callil, writer, critic and publisher, who founded Virago Press in 1973.

How to access EU funding

Thursday 16 January 2014, 8.30am Begbroke Science Park

www.begbroke.ox.ac.uk/Media/Events

Breakfast seminar on how to access the €70bn of innovation and research funding available through the European Commission's new Horizon 2020 initiative.



CONCERTS

Advent wassail

Sunday 1 December, 8pm Jacqueline Du Pré Music Building Tickets £5 on the door

www.st-hildas.ox.ac.uk/jdp-music-building

A concert that takes a fresh look at traditional carols and wassail songs, exploring their roots in the rich heritage of British, Irish and Appalachian folk music.

The Sixteen's Christmas concert: A ceremony of carols

Saturday 7 December, 7.45pm S John the Evangelist Church, Iffley Road Tickets £40/£30/£20

www.sje-oxford.org/events

A festive programme featuring the music of Francis Poulenc and Benjamin Britten, as well as familiar early carols.

OPEN DAYS

Digital day at Oxford e-Research Centre

Monday 9 December, 12pm-5.30pm 7 Keble Road

www.oerc.ox.ac.uk

Event for researchers to find out how innovative digital technologies can enhance and accelerate research.

WORKSHOPS

Fruit tree pruning

Saturday 14 December, 10am-1pm University Botanic Garden Tickets £40

www.botanic-garden.ox.ac.uk/events

Waterperry Orchard Manager Chris Lanczak passes on his top tips for keeping trees in peak condition and guides you through the practical steps of pruning them.

FAMILY FRIENDLY

Beautiful baubles

Thursday 5 December, 10.30am-12.30pm and 2-4pm

Pitt Rivers Museum

www.prm.ox.ac.uk/events.html

Make your own Christmas decoration inspired by wintery objects in the museum. Free drop-in sessions for the under-5s.

Pitt Stop: Lyra's furs

Saturday 7 December, 1-4pm

Pitt Rivers Museum

www.prm.ox.ac.uk/events.html

Discover the collection of Arctic clothing that inspired Philip Pullman. Then follow in Lyra's footsteps and prepare for a journey north.

SPORT

Varsity rugby match

Thursday 12 December, 2pm Twickenham Stadium Tickets £25 / £38

www.thevarsitymatch.com

The 132nd Varsity rugby match between Oxford and Cambridge - one of the longest running sporting events in the world.





SParks of Inspiration

A new portal invites the public to engage with the exciting science taking place across the University, report Harry Dayantis and Annabel Cook

Public engagement is fast becoming an essential factor in modern scientific research, but although many great initiatives taking place across the University reflected this, there was, until recently, no central hub at Oxford. That all changed early last year when Oxford Sparks was launched.

Oxford Sparks (www.oxfordsparks. net) supports Oxford scientists in sharing their research with the public. The hub uses animations, blogs, podcasts, social media and other digital formats, and allows the public to explore Oxford research from one readily accessible portal. At its core sits a rich repository of over 400 (and growing) resources, including activities, videos and educational material - all developed with a general audience in mind.

Two-minute, fun and quirky animations have been developed to showcase and explain cutting-edge areas of research. These follow the adventures of a character called Ossie, and find him colliding with protons in the Large Hadron Collider (and discovering the Higgs Boson), being frozen to absolute zero, folded into a heart protein, and much more. The animations are supported by specially commissioned teaching resources and 'science behind the animation' pages. They have also attracted celebrity support with voiceovers supplied by comedians including Jon Culshaw, Ed Byrne and Ruby Wax.

The animations and teaching resources are developed in consultation with a panel of experienced teachers. The panel includes Neil Dixon, an Advanced Skills Teacher from Bromsgrove. 'The project brings cutting-edge research at one of the UK's leading research and teaching universities directly into the classroom, enriching the learning of students and enthusing them about science and technology,' he says. 'Teachers are well supported through the provision of high-quality resources that are tailored to specific age groups.'

As well as the main website, there is an active social media presence, including Flickr and YouTube, as well as Twitter

and Facebook. Information on training and funding is shared, as well as Oxford research news of interest to the wider public.

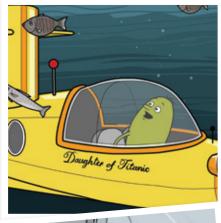
The idea for Oxford Sparks originated in the Mathematical, Physical and Life Sciences (MPLS) Division, driven by Professor Tim Softley of the Department of Chemistry and the division's Assistant Registrar for Education, Lou Sumner. Members of staff from across the University lend their support to the project, informing the creative process and the overall direction of the project.

David Pyle, Professor of Earth Sciences, is the project's academic lead. 'Now that we have six animations, we've reached a sort of critical mass,' he says. 'There are enough there to attract people, so I'd like to have even more content across the website. We're always looking for people to get involved with the project, whether that's by producing new content or sending us what you've already made. For example, you might have a presentation you give to schools once a year. Instead of letting it gather dust on your hard drive, we can link to it from the Oxford Sparks website so more people can benefit from your work.'

Annabel Cook, MPLS Science Communication Officer, who looks after the day-to-day running of the project, is also keen to involve scientists from across the University: 'Although the project came from MPLS, we encourage contributions from all scientists and engineers - it doesn't matter which division you belong to. We're also happy to work with people at any stage of their career, from postgraduate students to heads of department. If you have a passion for public engagement, or just want to learn more and explore your options, get in touch. There are many ways you can get involved - from writing a blog to filming your fieldwork. We'd love to help you share your passion!'

Oxford Sparks will shortly be piloting a series of workshops and networking events to build Oxford's public engagement offering. So don't hesitate - engage!







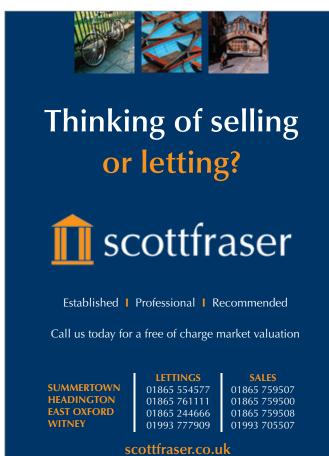


OSSIE IN ACTION. FROM TOP: A TRIP TOWARDS ABSOLUTE ZERO; ABOUT TO INVESTIGATE UNDERWATER VOLCANOES; A LOOK AROUND THE LHC. BOTTOM: COMEDIAN ED BYRNE NARRATED UNDERWATER VOLCANO DISASTER



Visit Oxford Sparks at www.oxfordsparks.net, 🚮 www.facebook. com/OxSparks or @OxfordSparks. To investigate how you might engage the public in your own research, email oxfordsparks@ mpls.ox.ac.uk









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Why am i here?

MATT BLANDFORD

Head of Financial Systems Support Centre

What do you actually do?

I manage the team that supports the financial systems of the University. As part of that role, I ensure we're available to support users currently using the system, and that we work with them to look at improving processes where possible and make maximum use of the systems available.

Aren't you currently working on a new system?

Many Blueprint readers will be aware of the big change earlier this month when Oracle Financials was upgraded to R12 - the culmination of a large project over a number of months. Out of the back of this massive change, the Financial Systems Support Centre will be working on enhancements to the system over the coming months and years.

What do you most enjoy/dislike about your job?

I like providing people with the tools that make their job easier, whether finance is core to their job and we make it easier for them, or whether finance is part of their job so our tools enable them to complete their transactions quickly and return to their primary role. I dislike that no matter how hard we try, we can never provide a system that everyone likes.

Childhood ambition? And your first job?

I wanted to be a pilot in the Royal Air Force. After a maths degree I became a Customer Service Advisor for the Co-operative Bank in Manchester.

So how did you get from there to here?

I became a financial accountant with the Co-op Group Financial Control and then moved into the system development team. In 2005 I joined Liverpool John Moores University as System Accountant and while there, in 2009, implemented R12 Oracle Financials. So I brought four years' experience of R12 with me when I joined Oxford three months ago.

What do you enjoy outside work?

I like travel and the usual reading. I also enjoy baking when I can – I have 12 Christmas cakes to bake shortly!

What's your greatest extravagance?

My nephews - I spoil them rotten.

What's the most unexpected thing you've found yourself doing?

Being involved in an Oracle Financials R12 upgrade four years after doing my first. It doesn't happen that often unless you're an Oracle consultant.

Your favourite website? And best fact you've learned online?

The BBC - sad but true! First thing I look at in the morning to see what's happened overnight in the world. The most interesting thing I've learned online is that there is a prime number called Belphegor's Prime Number. Belphegor is one of the seven princes of hell and the prime number is not only a palindrome but is 10000000000000666000000000000001 - 666 with 13 zeros each side of it spoooooky!



What's your most prized possession - and whv?

My international air cadet exchange blazer. Only 80 cadets in the UK are entitled to wear it each year and I was one of those chosen back in 1992. I've kept it in its suit holder ever since.

If we gave you £1,000 right now, what would you spend it on?

An Apple Mac – I need a new computer!

Your three ideal dinner guests?

George Lucas - I love Star Wars. Plain and simple. I'm not a huge geek but they're my favourite films. My paternal grandfather. He passed away when I was 11 but he loved *University* Challenge and was in awe of students from Oxford and Cambridge, so he would love the fact that I now work for one (the better) of those. Sir Isaac Newton. As a maths graduate, it would be fascinating to speak to him about how he came up with the theories that much is now based on.

And finally, what would your colleagues be surprised to learn about you?

I've flown a glider solo - one of the scariest things I've ever done.



WHERE'S THIS MARVELLOUS MOSAIC? ANSWER ON P6.



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