Maths in the city
Inside the OED
Sounds of the Pitt Rivers
The impact and value of the study of humanities to the economy and society is the focus of new research commissioned by the Humanities Division. The report, *Humanities Graduates and the British Economy: The Hidden Impact*, which was researched and written by Dr Philip Kreager of the Institute of Human Sciences, shows that humanities graduates played a significant role in employment sectors which brought about growth in the UK economy in the 1970s and 1980s, including finance, media, legal services and management. Find out more at www.torch.ox.ac.uk/graduateimpact.

The University’s Facebook page recently celebrated its one millionth ‘like’, meaning that Oxford now has more followers than all the other Russell Group universities combined. The site is used to share University news and events with a broad international audience, almost 80% of whom are aged under 24. The University has also recently joined the Chinese social media platform Weibo: e.weibo.com/OxfordUni.

Staff and students from across the collegiate University welcomed an estimated 14,000 extra visitors to Oxford on 26 and 27 June as part of the open days for prospective undergraduates (www.ox.ac.uk/opendays). In addition to talks and tours held in departments and colleges, the Examination Schools was used as a site for information sessions for prospective students and their parents. The next open day will be on Friday 20 September. If you’re interested in helping at the event, which involves welcoming prospective students and handing out information, please complete the online form available via www.ox.ac.uk/staffnews.

A new Korean Studies Library has opened in the basement of the Oriental Institute Library, following the gift of 3,000 books and the creation of an audio-visual seminar room under the Window on Korea 2013 project of the National Library of Korea. With the new books added to the 33,000 Korean-language titles, 12,000 non-Korean-language titles and 700 Japanese-language titles already available, the collection becomes the largest in the UK.

Wondering how to keep your children entertained over the school holidays? Why not enrol them on a local playscheme, with discounted rates for University staff; Oxford Montessori Schools is running a Create Holiday Club for 3- to 15-year-olds in Elsfield; Sport Academies are running camps in Oxford for 7- to 16-year-olds, with sports including athletics, hockey, rowing and rugby; while Oxford Active has camps for children aged from 4 to 14, with activities ranging from arts and crafts to orienteering. Details at www.admin.ox.ac.uk/childcare/playscheme.

 Noticed a king penguin in the Covered Market or a white rabbit in Oxford Central Library? Twelve specimens from the Museum of Natural History have found temporary residence in locations around Oxford as part of the ‘Goes to Town’ project. The museum is closed this year for essential repairs to its 150-year-old glass roof and so staff have come up with a creative way to ensure the public can still enjoy its exhibits. Information about each specimen and its location, together with podcasts from museum staff and University researchers, is at www.goestotown.com.

A £1m fund has been established for the advancement of diversity among academic and research staff at Oxford. One of the primary aims of the new fund, which will be known as the Vice-Chancellor’s Diversity Fund, will be to address the under-representation of women in senior research and academic posts. The intention is to use the fund to support a broad range of initiatives, such as providing support for staff returning to work after a period of maternity leave or time out caring for relatives. The University has long been committed to increasing diversity among its academic and research staff. Oxford currently holds an institutional Athena SWAN Bronze Award (find out more on page 7), and the aim is to use the fund to help deliver a lasting change in culture across the collegiate University together with the measurable benefits that are the expectation for an institutional Silver Award. Further information is at www.admin.ox.ac.uk/eop.
Death rates from heart disease have more than halved in many European Union countries since the early 1980s, researchers in the British Heart Foundation Health Promotion Research Group at Oxford have found. Almost all EU countries showed a large and significant decrease, with the UK seeing one of the largest drops – though it started with particularly high rates. Nonetheless, heart disease remains a leading cause of mortality. Together, heart disease and stroke kill over 1.9m people a year in the EU, representing 40% of all deaths.

The insult ‘bird brain’ becomes less and less usable the more Oxford scientists find out about the cognitive abilities of certain species. In the latest study by researchers in the Zoology Department and European colleagues, ten untrained Goffin’s cockatoos were presented with a puzzle box showing a nut behind a transparent door secured by a series of five different interlocking devices, each one jamming the next along in the series. To retrieve the nut the birds had to first remove a pin, then a screw, then a bolt, then turn a wheel 90 degrees, and then shift a latch sideways. One bird, called Pipin, cracked the problem unassisted in less than two hours, and several others did it with some help, either by being presented with the series of locks incrementally, or by watching a skilled partner doing it. Once the birds discovered how to solve one lock they rarely had any difficulties with the same device again; and they could respond to changes such as reordering or removal of devices. Professor Alex Kacelnik says: ‘We cannot prove that the birds understand the physical structure of the problem as an adult human would, but we can infer from their behaviour that they are sensitive to how objects act on each other, and that they can learn to progress towards a distant goal without being rewarded step by step.’

An online bibliography designed to document comprehensively the study of ancient Egypt has just passed 100,000 items. The Online Egyptological Bibliography (OEB) was started in Oxford in January 2009 as the successor to the Annual Egyptological Bibliography, which began in Holland in 1947. Based in the Griffith Institute within the Faculty of Oriental Studies, the project brings together almost two centuries’ worth of academic publications in Egyptology from across the globe. It covers all aspects of Egyptology, from linguistics to scientific archaeology. All academic publications in Egyptology in any language are added. Putting the bibliography online has meant instant additions compared with the previous three- or four-year time lag when the bibliography was a print project: it updates daily and already contains more than 250 entries for 2013.

The majority of embryos produced by IVF have fatal genetic abnormalities that prevent progression either to pregnancy or to birth, including, in many cases, the wrong number of chromosomes – but it is difficult and expensive to screen for these when selecting which embryos to implant. An approach developed by an Oxford-led team holds new promise. Dr Dagan Wells, of the Institute for Reproductive Sciences in the Nuffield Department of Obstetrics and Gynaecology, led an international team that showed how ‘next-generation sequencing’ can be used to select embryos with the right number of chromosomes, in a more affordable way than existing screening options. The team’s particular breakthrough was managing to use the latest DNA sequencing techniques with single cells taken from IVF embryos when they are a few days old. The first baby whose conception involved the technique was born in the US last month.

National differences have been revealed by one of the largest comparative studies of online news habits ever carried out. The second annual Reuters Institute Digital News Survey, published by Oxford’s Reuters Institute for the Study of Journalism, commissioned YouGov polls of 11,000 online users in the UK, US, Denmark, France, Germany, Spain, Italy, Brazil and Japan. Most of the Germans and French surveyed said that although they are connected online, they prefer traditional media: 55% of Germans said they read newspapers each week, while most French respondents relied on TV and radio for news. The Japanese and Americans were the most likely to use non-traditional news websites and online aggregators. Meanwhile, Brazilians living in towns and cities favoured social media (47%) as a source of news. Urban Brazilians were also five times more likely to comment on a news site than the Germans or Japanese surveyed, and nearly half (44%) shared a news story weekly via a social network.
peopLe and prizes

Dr Susan Brigden, Reader and Tutor in Early Modern History and Fellow of Lincoln College, has won the 2013 Wolfson History Prize for Thomas Wyatt: The Heart’s Forest, a biography of the Tudor poet, ambassador and courtier (Faber and Faber, 2012). The prize recognises an exceptional work of history which also addresses a wider public.

Andrew Goudie, Emeritus Professor of Geography, former Master of St Cross and Director of the China Centre, has been awarded an Honorary Fellowship by the International Association of Geomorphologists. He is one of only three British geomorphologists ever to have received this award.

Dr Carl Heneghan, Director of Programmes in Evidence-Based Healthcare in the Department of Primary Care Health Sciences, has been listed among the 100 most influential clinical leaders in England by Health Service Journal.

Dr Richard Powell, University Lecturer in Human Geography at the School of Geography and the Environment, has received the Royal Geographical Society—IBG Gill Memorial Award for research on historical and Polar geography.

Fiona Powrie, Sidney Truelove Professor of Gastroenterology, has been elected a member of EMBO, the international body which recognises outstanding researchers in the life sciences.

Dr Eleanor Stride, Reader in Biomedical Engineering, has received the 2013 R Bruce Lindsay Award of the Acoustical Society of America for her contributions to biomedical applications of acoustic bubbles, particularly the development of ultrasound-responsive microbubbles that can be guided and trapped under the effect of an externally applied magnetic field.

Professor Oliver Taplin, Emeritus Fellow in Classics, Ancient History and Archeology at Magdalen College, has been awarded an Honorary Doctorate by the University of Athens, on the nomination of the Faculty of Theatre Studies.

Alain Viala, Professor of French Literature, has won the ‘Coup de cœur’ 2013 of the Académie Charles Cros/Union européenne des Maisons de la poésie for Histoire de la littérature – Le Moyen Âge, a box-set of five CDs with readings by Daniel Mesguich.

Jennifer Welsh, Professor of International Relations, has been appointed Special Adviser to the Secretary General of the United Nations on the Responsibility to Protect.

Chemistry Prizes

Four academics in the Department of Chemistry are among the winners of this year’s Royal Society of Chemistry awards and prizes.

Dr Andrew Baldwin (pictured) has been awarded a Harrison–Meldola Memorial Prize for his contributions to understanding the quaternary dynamics that govern sizes of oligomeric protein assemblies, through NMR,mass spectroscopy and electron microscopy.

Dr John Brown has won the 2013 Robert Robinson Award in recognition of his key contributions to the understanding of the mechanisms of organometallic catalysis and the resulting practical applications through the introduction of new catalysts for synthesis.

Dr Andrew Goodwin is the winner of the 2013 Marlow Award for his innovative studies of the physical chemistry and chemical physics of amorphous materials. Professor S C Edman Tsang has been awarded the Surfaces and Interfaces Award for his research on nanocatalysts.

People and Prizes

Waynflete Professor of Pure Mathematics

Ben Green, Herchel Smith Professor of Pure Mathematics, University of Cambridge, will take up this post in the Mathematical Institute from 1 August. He also becomes a Fellow of Magdalen College.

Professor Green works in the area now known as additive combinatorics, where problems may have the flavour of number theory, analysis or combinatorics, or combinations of all three. He also takes an interest in areas such as ergodic theory and group theory, and any kind of number theory with a slightly analytic bent. He was elected a Fellow of the Royal Society in 2010.

Professor of Geochemistry

Christopher Ballentine, Professor of Isotope Geochemistry, Director of Research at the School of Earth, Atmospheric and Environmental Sciences and Head of the Isotope Research Group at the University of Manchester, has been appointed to this post in the Department of Earth Sciences from 1 August. He will also become a Fellow of St Hugh’s College.

Professor Ballentine has pioneered the use of noble gas isotope tracer techniques on regional to planetary scales. In the Earth’s crust his work focuses on understanding the origin, transport and multiphase interaction of critical carbon rich fluids. He also uses these same isotope systems to place basic observational constraints on the origin of Earth’s atmosphere, the mechanisms that deliver volatiles like water and carbon to the Earth’s mantle and the evolution and interaction of these major geochemical reservoirs over the 4.55 billion years of Earth’s history. He is currently President of the European Association of Geochemistry.
HONORARY DEGREES

Eight leading figures have received honorary degrees at Encaenia, the University’s annual honorary degree ceremony.

Doctor of Civil Law:
Honourable Andrew Li Kwok Nang, GBM, CBE, LLM, is the former Chief Justice of the Court of Final Appeal of Hong Kong. He has served as a member of the Executive Council of Hong Kong, Steward of the Hong Kong Jockey Club, Chairman of the Hong Kong University Grants Committee and of the Hong Kong Land Development Corporation, Vice-Chairman of the Council of the Hong Kong University of Science and Technology, and Vice-Chairman of the Council of St Paul’s Co-Educational College. He has also served on the Judicial Service Commission, the Law Reform Commission and the Securities Commission.

Dame Anne Owers, DBE, BA, is the Chair of the Independent Police Complaints Commission and served as Her Majesty’s Chief Inspector of Prisons from 2001 to 2010. Between 2010 and 2011 she chaired an independent review of the prison system in Northern Ireland, and she has previously served as director of Justice, the UK-based human rights and law reform organisation. She is currently a non-executive director of the Criminal Cases Review Commission and holds a number of other voluntary roles in the area of penal policy and activity.

Doctor of Letters:
Professor Anthony Grafton, AB PhD, is Henry Putnam University Professor of History and the Humanities at Princeton University. His many books include *Joseph Scaliger: A Study in the History of Classical Scholarship; The Art of History in Early Modern Europe; Christianity and the Transformation of the Book* (with Megan Williams); and ‘I Have Always Loved the Holy Tongue’: Isaac Casaubon, the Jews, and A Forgotten Chapter in Renaissance Scholarship (with Joanna Weinberg). His many honours include the 2002 Balzan Prize for History of the Humanities and the 2003 Mellon Foundation Award for Distinguished Achievement in the Humanities.

Sir Tom Stoppard, OM, CBE, is a playwright who has written prolifically for TV, radio, film and stage. He has won numerous awards for his plays, which include *Arcadia, The Real Thing, The Invention of Love and Rosencrantz and Guildenstern Are Dead*. He co-wrote the screenplays for *Brazil* and *Shakespeare in Love*, and has received an Academy Award and four Tony Awards. His most recent work includes, for screen, *Anna Karenina* and for television, the acclaimed BBC 2 series *Parade’s End*. His plays explore themes of human rights, censorship and political freedom as well as exploring linguistics and philosophy. He is a Fellow of the Royal Society of Literature.

Doctor of Science:
Professor Ingrid Daubechies, BS PhD, is a leading authority on wavelet theory. In 1987 she constructed a class of wavelets that were identically zero outside a finite interval, now among the most common type of wavelets used in applications. She was the first female full professor of mathematics at Princeton University and the first female president of the International Mathematical Union. She is currently James B Duke Professor of Mathematics at Duke University.

Baroness (Tanni) Grey-Thompson, DBE, DL, BA, is one of Britain’s most successful Paralympic athletes, winning 16 medals including 11 golds. A wheelchair racer, she also won the London Marathon wheelchair event six times between 1992 and 2002. She now plays an active role in the administration of sport. She is Vice-President of the Women’s Sports Foundation, Patron of Sports Leaders UK and a member of the Laureus World Sports Academy, and was involved in London’s successful bid for the 2012 Olympic and Paralympic Games. She is a member of the board of Transport for London, of the London Marathon and of the London Legacy Development Corporation, and has been President of the National Council for Voluntary Organisations since 2012. She sits in the House of Lords as a crossbench peer.

Colin Smith, CBE, BSc, is Director of Engineering and Technology at Rolls-Royce, where he previously held the roles of Director of Research and Technology and Director of Engineering and Technology for Civil Aerospace. He is a Fellow of the Royal Academy of Engineering, the Royal Aeronautical Society and the Institution of Mechanical Engineers.

Doctor of Music:
Murray Perahia, KBE, BMus, is a pianist and conductor who has worked with Benjamin Britten, Peter Pears, Vladimir Horowitz and Pablo Casals. He has appeared regularly with the Guarneri and Budapest String Quartets and is Principal Guest Conductor of the Academy of St Martin in the Fields. He has won two Best Instrumental Soloist Grammyms: in 1998 for his Bach’s *English Suites Nos. 1, 3, and 6*; and in 2002 for his Chopin’s *Etudes, Op. 10 and Op. 25*. He has received many other Grammy nominations, won several Gramophone Awards and was the inaugural performer of the Piano Award in 2012. He is currently editing the complete Beethoven Sonatas for the Henle Urtext Edition, and has recently produced and edited hours of recordings of recently discovered masterclasses by Alfred Cortot.

BIG WELCOME FOR OXFORD ACADEMIES

Two Oxford researchers have recently been appointed to senior posts at the Wellcome Trust.

Jeremy Farrar, Professor of Tropical Medicine and Global Health, and Director of the Oxford University Clinical Research Unit in Vietnam, is to become Director of the Wellcome Trust on 1 October.

Dame Kay Davies, Dr Lee’s Professor of Anatomy, has been appointed as Deputy Chairman of the Wellcome Trust. She has been a Governor of the Trust since January 2008 and will also take up her new role on 1 October.

NEW APS MEMBERS

Dr Sarah Thomas, Bodley’s Librarian, was elected a Member of the American Philosophical Society at its 2013 Spring Meeting.

Also elected, as International Members, were Dr Margaret Bent, Emeritus Fellow of All Souls College and Member of the Music Faculty, and Professor Sir Adam Roberts, Senior Research Fellow of the Centre for International Studies and an Emeritus Fellow of Balliol College.
Seven senior members of the University and one of the University’s most generous benefactors have been recognised in the 2013 Queen’s Birthday Honours.

Andrew Dilnot, Warden of Nuffield College, is knighted for services to economics and economic policy. Sir Andrew chairs the UK Statistics Authority and chaired the Commission on the Funding of Care and Support, which reported in 2011. He was Principal of St Hugh’s from 2002 to 2012 and a Pro-Vice-Chancellor of the University from 2005 to 2012. He served as Director of the Institute for Fiscal Studies from 1991 to 2002, and was the founding presenter of BBC Radio 4’s series on the beauty of numbers, More or Less.

Professor Hermione Lee, President of Wolfson College, is appointed DBE for services to literary scholarship. Dame Hermione is a renowned biographer, reviewer and broadcaster who has written biographies of Virginia Woolf, Edith Wharton and Willa Cather, and critical books on Elizabeth Bowen, Woolf and Philip Roth. From 1998 to 2008 she was Goldsmiths’ Professor of English Literature at New College and in 2006 chaired the Man Booker Prize.

Professor Terence Cave, Emeritus Research Fellow of St John’s College and Director of the Balzan Interdisciplinary Seminar Literature as an Object of Knowledge at the St John’s College Research Centre, is appointed CBE for services to literary scholarship. He was Professor of French Literature from 1989 until 2001 and has been a Fellow of St John’s College since 1972. In 2009 he was awarded the prestigious International Balzan Prize for ‘his fundamental contributions to renaissance literature and how it was written’.

Professor Anthony Heath, Emeritus Professor of Sociology and Emeritus Fellow of Nuffield College, is appointed CBE for services to social science. Professor Heath, whose research focuses on electoral behaviour and the sociology and politics of ethnicity and nationalism, was Professor of Sociology from 1996 to 2010. He is Co-Director of the Centre for Research into Elections and Social Trends and was director of the British Election Studies for 1983, 1987, 1992 and 1997.

Professor Peter Dobson, Director of the Begbroke Science Park, Professor of Engineering Science and Senior Research Fellow of The Queen’s College, is appointed OBE for services to science and engineering, nominated for his role as Strategic Advisor on Nanotechnology to the UK Research Councils. His research interests include nanotechnology, biotechnology, environmental technology, energy and materials science, and his work has generated two spin-out companies: Oxonica plc, which makes nanoparticles for applications ranging from sunscreens to fuel additive catalysts and bio-labels; and Oxford Biosensors Ltd, which developed technology for handheld diagnostics for life sciences applications.

Professor Alison Noble, Technikon Professor of Biomedical Engineering, Director of the Institute for Biomedical Engineering and Fellow of St Hilda’s College, is appointed OBE for services to science and engineering. She is a founding director of the Biomedical Image Analysis Laboratory and heads large research activities in cardiac image analysis, cancer image analysis and women’s health imaging, plus smaller activities in image-guided interventions and therapy and cellular image analysis. Her group is particularly known for in vivo soft tissue analysis and the role of ultrasound image analysis in this area.

Dr Lucy Carpenter, Emeritus Fellow of Nuffield College and former Reader in Statistical Epidemiology, is appointed MBE for services to public health in the UK and abroad. Her research interests lie in the fields of occupational epidemiology, HIV in Uganda, the associations between cancer and infectious diseases, and statistical methods in epidemiological research. She is Secretary to the Blackfriars Overseas Aid Trust.

In addition, Michael Moritz, the businessman and philanthropist who, with his wife Harriet Heyman, last year pledged £75m to establish the Moritz–Heyman Scholarship Fund at the University, is knighted for services to promoting British economic interests and philanthropic work. The gift established the Moritz–Heyman Scholarship Fund, which currently supports 100 undergraduates from low-income backgrounds. Through its matched-funding challenge, the programme seeks to generate an unprecedented total of £300m to support UK undergraduates from lower-income backgrounds. Mr Moritz is an alumnus of Christ Church.

The University is to establish a new £3.65m interdisciplinary Centre for Doctoral Training in Cyber Security, drawing not just on computer science but also on human and social sciences, business, law and international relations. Graduates will study topics such as the security of ‘Big Data’, effective systems verification and assurance, and security issues related to the integration of digital and physical environments. Academic study will be interspersed with ‘deep dive days’ when students will gain first-hand experience from users in industry and government about the cyber security challenges they face. They will also learn business, teamwork and entrepreneurial skills, as well as undertaking their own cyber security awareness and education projects within the University.

Shell has given a £5.9m boost to research into natural energy resources at the University’s Department of Earth Sciences through support for a new research collaboration, The Shell–Oxford Research Partnership, and the establishment of the Shell Geoscience Laboratory. The Partnership will support more effective development of natural resources to meet growing global demand for energy and will provide insights into the sequestration of greenhouse gases, crucial to the development of carbon capture and storage technology. The research programme will include addressing fundamental challenges relating to the physical and chemical characterisation and origins of mudrocks: sediments that are important as source rocks for conventional hydrocarbons, as reservoirs for unconventional hydrocarbons, and as seals for the geological storage of carbon dioxide.

Professor Vivekanand Jha has been appointed as the Executive Director of The George Institute for Global Health, India, and James Martin Fellow at The George Institute for Global Health at the University of Oxford. He was previously Professor of Nephrology and Head, Department of Translational Regenerative Medicine and Officer-In-Charge, Medical Education and Research Cell at the Postgraduate Institute of Medical Education and Research in Chandigarh, India. Professor Jha specialises in kidney diseases and focuses on emerging public health threats globally and in India. He is a member of the WHO Expert Advisory Panel on Human Cell, Tissue and Organ Transplantation.
GOING FOR GOLD

Chemistry, choirs and cricket may seem an unlikely combination for creating a great science environment, but Athena SWAN awards do more than tell us how many women work in a department, as Caroline Cross discovers.

Across academia, women are under-represented in senior positions. In 2009, less than 10% of departmental heads at Oxford were female, and in 2010, only a quarter of committee members overseeing strategy and resourcing at the University were women. At reader and professorial levels, the numbers are often smaller still, particularly in science, technology, engineering, maths and medicine (STEMM) departments. The reasons for the disparity between men and women in top scientific posts are complex, but it is no longer sufficient to accept the status quo.

In 2011, in an open letter to universities and medical schools, Dame Sally Davies, the Government’s Chief Medical Officer and Scientific Advisor, threw down the gauntlet for NIHR biomedical research centres and units, stating that in the next funding round, only applicants where the academic partner had achieved at least a Silver Athena SWAN award would be shortlisted.

The Athena SWAN Charter was established in 2005 to address the under-representation of women in academic science by recognising good employment practices in STEMM departments. Supported by the Equality Challenge Unit and Research Councils UK, the Charter sets out six principles to address gender inequalities. Its award scheme aims to promote cultural change at all levels within academic departments to help remove barriers to progression for women.

But it’s not just about increasing the number of women working in a department.

To receive an Athena SWAN award, departments must demonstrate that practices are in place to support the work-life balance and promote equal opportunities for career progression. The awards celebrate recruitment and working practices that will benefit both men and women.

‘We want to see that the working culture as a whole within a department supports family-friendly practices such as holding team meetings and key seminars within core hours’, explains Dr Katie Perry, an Athena SWAN judge and CEO of the Daphne Jackson Trust, a charity that supports researchers returning to scientific careers following a career break.

The University of Oxford currently holds a Bronze institutional Athena SWAN award. Four departments hold a Silver award (Earth Sciences, Materials, Plant Sciences and Zoology) and seven have achieved Bronze (Biochemistry, Chemistry, Clinical Neurosciences, Engineering Science, Experimental Psychology, Physics and Primary Care Health Sciences).

Dr Kylie Vincent helped compile the Chemistry department’s successful Bronze submission in 2012. She believes the process of applying for an award, which includes setting out an action plan for improvements, has benefited the department and has already brought about important changes. ‘The Athena SWAN scheme has the potential to make a big difference because it forces departments and divisions to take a look at the profile of their workers and to think deeply about the reasons for inequality of representation of men and women at all levels’, she explains.

For example, surveys of Chemistry staff and students, carried out as part of the application process, highlighted concerns over the transparency of decision-making. The department has responded by implementing changes to committee structures that allow all staff to feel involved in the process, and help create clearer routes to promotion and career progression. A successful careers conference for senior postgraduate students and postdoctoral scientists has been held and social activities such as a chemistry choir, cricket matches and a family picnic in the Botanic Gardens have been introduced. Social networks have been established and a weekly newsletter now provides information on everything from job and grant opportunities to social events. To encourage more diversity among applicants to Chemistry, a schools liaison post has been created.

And achieving Bronze is just the starting point. Athena SWAN award holders must apply for renewal after three years, and applicants are encouraged to strive for greater change by progressing from Bronze to Silver and Gold status. To date, only three academic departments in the country have achieved Gold Athena SWAN awards, and two are Chemistry departments — at Edinburgh and York. Both women and men in Chemistry at Oxford have everything to strive for.

The current House of Commons select committee enquiry into women in academic STEM careers is accepting written submissions until 3 September; see www.parliament.uk/business/committees/committees-a-z/commons-select/science-and-technology-committee/inquiries/parliament-2010/women-in-stem-careers

More information at www.admin.ox.ac.uk/eop/gender/athenaswan or contact Adrienne Hopkins, Equality and Diversity Advisor, at adrienne.hopkins@admin.ox.ac.uk
Reflecting on the maths — the spectacular Bank of China Tower, one of the most recognisable skyscrapers in Hong Kong.
Mathematics lies at the heart of modern life, from the smartphones we use to the buildings we live in, yet fewer than 20% of students in England study maths beyond GCSE, thinking it too difficult or too abstract. That’s where Maths in the City comes in, a public engagement initiative led by Marcus du Sautoy, the University’s Charles Simonyi Professor for the Public Understanding of Science.

The Maths in the City programme was set up in October 2010 to inspire people of all ages to take an interest in maths. For two years, the team ran walking tours around Oxford and London, enlightening visitors about the importance and relevance of maths in their cities. Although guided tours are no longer available, visitors to the Maths in the City website can find stunning examples of maths in the city environment and are encouraged to upload their own photos, access the dozens of different tours now available and devise their own tours with the same philosophy as the originals.

‘I wanted these to be more than just “blue plaque” tours about mathematicians’, explains Professor de Sautoy. ‘The idea was to really get across the importance of maths in everyday life, in the things we take for granted.’

‘Often when a tour guide explains the mathematics behind the site, you can see a person’s face light up’, says Tobias Teo. ‘They realise that we were not kidding when we begin the tour by saying mathematics is all around us. It’s the same face a baby would make when it discovers something new in the world.’

Yet the visitors weren’t the only ones learning new things, with the Mathemagicians developing their own communication skills throughout the process. Many have been inspired to take these skills further, including Tobias, who is now training to be a maths teacher.

‘The value of the project is evident in our bright young volunteers as well as the hundreds of visitors they have inspired’, says David. ‘Although we no longer run tours, anyone can visit the website to contribute ideas and use the material to run their own tours.’ The website now lists tours for over 100 locations around the world, from Newcastle to New York.

The lasting online element of the project also inspired David to launch Oxford Connect, an online portal where anyone in the world can engage with the University. Oxford Connect was launched this year on ‘Pi Day’, 14 March, with Marcus de Sautoy hosting an online ‘Find Pi’ event. There are plans to further expand this exciting format in future, to increase the University’s global outreach.

More at www.mathsinthecity.com. The Oxford Connect portal is at http://oxfordconnect.conted.ox.ac.uk
THE OED UNBOUND

The Oxford English Dictionary, published by Oxford University Press – the University’s largest department – is embracing digitisation and leaping forward, says John Garth

In 1879 James Murray, the first editor of the Oxford English Dictionary, foresaw four volumes, taking 10 years; in fact the complete Dictionary was only published in 1928, occupying 10 massive volumes. Yet Murray’s error was purely quantitative. Sitting in his famous ‘scriptronium’ marshalling slips of quotations, he could never have imagined the qualitative quantum leap the Dictionary has since taken – becoming a doorway into a lexical world accessible from desks and laptops globally.

‘What the OED was in the 19th century was a book where you could look something up, you found what you wanted, and you went away’, explains Chief Editor John Simpson, a Fellow of Kellogg College who went away, you found what you wanted, and you was a book where you could look something up, and then move on for more specialised data, such as timelines. Simpson, who counts ‘working out how to move it from the language of science fiction, and those are the people we want to work with’, says Pearsall. A pilot website was set up a few years ago to gather citations from the language of science fiction, and Simpson says the same method would work for sport, archaeology and so on. He thinks OED Online could be wrapped in ‘a wiki overcoat’ – a collaborative, moderated online environment rather like Wikipedia, through which anyone could offer language information and view it all raw, before the lexicographers get to work on it.

Increasingly, the editors are exploiting digital means to provide what no book could ever deliver. If asked the right question, OED Online can tell you everything it knows about the language of computing, or which authors’ works have provided the most citations, or what Italian words have entered the English language and when. It dovetails with the independently compiled Historical Thesaurus of the OED, in which all the various senses of its words are arranged thematically. For those with specialist needs, it also furnishes links to dictionaries of Old and Middle English. The interface is being tailored to provide graphical ways into the data, such as timelines. Simpson, who counts ‘working out how to move it from a Victorian dictionary to a 21st-century dictionary’ as the big achievement of his editorship, would like to see the OED incorporate images and (copyright permitting) sound and video.

Nostalgic bibliophiles may miss the feel of paper and the grand bindings of the print volumes. Thanks to digitisation, however, the OED is truly unbound, in the best possible sense of the word.

More information at http://public.oed.com/about/free-oed
Oxford dictionaries – exploiting digital means to provide what no book could ever deliver

Garth Boden
In May, the BBC and Arts and Humanities Research Council announced Dr Eleanor Rosamund Barraclough as one of ten ‘New Generation Thinkers’. Her reward is the chance to work with TV and radio producers to turn her research ideas into compelling programmes.

The scheme is a perfect fit for Dr Barraclough, who is a Leverhulme Early Career Fellow in the English Faculty, specialising in Old Norse-Icelandic literature, and a Junior Research Fellow at The Queen’s College where she teaches Old and Middle English. ‘I’ve spent much of my academic life in the company of Norse saga heroes with names such as Erik Bloodaxe, Thorfinn Skull-Splitter, Ragnar Hairy-Breeches and Eysteinn Fart’, she says. ‘So I was delighted to win this award because I want to bring this fascinating, vibrant world to as wide an audience as possible.’

Dr Barraclough says sharing her research with a wide audience is one of the main reasons she went into academia. Her academic career began at the University of Cambridge, where she did an undergraduate degree and a PhD, spending time at the Norwegian universities of Bergen and Oslo as a visiting scholar. Her time in Norway gave her the taste for a number of research trips abroad, part of the preparation for writing her book, From the Edge of the Earth: Mapping the World in the Old Norse Sagas, which will be published by Oxford University Press. ‘My research often takes me to the chilly climes of Scandinavia, Iceland and Greenland, as well as parts of the British Isles settled by the Vikings’, she says. ‘I’ve recently come back from Orkney, where I have been investigating Orkney’s Viking heritage as part of a collaborative research project between the universities of Oxford, Cambridge, Nottingham and the Highlands & Islands.’

She adds: ‘I spent last summer in Greenland on horseback, riding around what was once the Norse “eastern settlement”, inhabited by Vikings such as Erik the Red. This year, I will be returning to Greenland to sail the deserted fjords of what was the “western settlement” further up the coast, camping by ruined farmsteads and exploring their frozen northern hunting grounds around Disko Bay.’

‘I’ve spent much of my academic life alongside Norse saga heroes with names such as Erik Bloodaxe, Thorfinn Skull-Splitter, Ragnar Hairy-Breeches and Eysteinn Fart’

Talk of Viking settlements conjures up the stereotypical image of a horde of bearded men with horned helmets and swords, raping and pillaging their way across Europe and beyond. Does this image pose a challenge to scholars of Old Norse when they try to communicate their research? ‘Anything that gets people interested in the subject is fine by me’, says Dr Barraclough. ‘The TV programmes, films and storybooks are a wonderful springboard from which to explore and explain who the Vikings really were and what they did, and what sort of medieval literature was written about them in the subsequent centuries. After all, the earliest “Vikings” that I remember from my childhood were those in Noggin the Nog and the Asterix comics!’

Although Vikings didn’t wear horned helmets and research has cast doubt on their reputation as savage raiders, some of the ‘myths’ portrayed in TV and film are actually true. ‘It’s not a myth that the Vikings reached the North American continent’, Dr Barraclough explains. ‘The sagas describe voyages there and Norse interactions with the natives. These stories are backed up by archaeological evidence from the Anse aux Meadows site, which shows that the Norsemen were definitely there, even if they didn’t settle the land permanently.’

Dr Barraclough says she is often surprised by just how much people already know about the period. ‘Recently I popped into a beauty shop for shampoo, and ended up chatting to two of the girls working there about how far the Vikings travelled beyond Scandinavia – for instance to Greece, the Holy Land and Russia’, she says. ‘So many people seem to have a natural interest in this subject, and I want to do anything I can to encourage that.’
Outdoor Theatre

The Taming of the Shrew
Until 21 July
Old Schools Quadrangle, Bodleian Library
Tickets £19.50 / £17.50 concessions
www.bodleian.ox.ac.uk/whats-on
The Bodleian and the Oxford Playhouse welcome back the Globe Theatre on Tour to perform Shakespeare’s The Taming of the Shrew in the stunning setting of the Old Schools Quadrangle.

The Merry Wives of Windsor
Until 16 August
Wadham College
Tickets £22.50 / £17.50 / £12.50 concessions
www.oxfordshakespearecompany.co.uk
Welcome to the Windsor Fete – a celebration of cake stalls and cricket, and the perfect setting for games of jealousy, deceit and revenge in Shakespeare’s battle of the sexes, performed by the Oxford Shakespeare Company.

Family Friendly

School’s Out! Picnic afternoon
Saturday 27 July, 1–4pm
Botanic Garden
www.botanic-garden.ox.ac.uk/whatson
Celebrate the beginning of the summer holidays with a picnic in the Botanic Garden. Listen to stories and songs, sow seeds, and make a newspaper plant pot.

Need/Make/Use Day
Saturday 31 August, 11am–5pm
The Pitt Rivers' big summer event
www.prm.ox.ac.uk/specialevents.html
Research woodland. Evening badger watch and night walk with bat detectors; researchers discussing badgers plus a peek into the lives of bats; woodland trail and demonstrations plus museum tours and refreshments.

Exhibitions

Magical Books: From the Middle Ages to Middle-Earth
Until 27 October
Exhibition Room, Bodleian Library
www.bodleian.ox.ac.uk/whats-on
The Bodleian’s summer exhibition focuses on the work of some of the foremost modern exponents of children’s fantasy literature, including C S Lewis, J R R Tolkien, Susan Cooper, Alan Garner and Philip Pullman.

Conferences

Oxford Parkinson’s Disease Centre Research Day
Tuesday 10 September, 9am–6pm
Medical Sciences Teaching Centre
www.opdc.ox.ac.uk/research-day-2013
Talks by Oxford researchers and external speakers on the latest developments in Parkinson’s research at Oxford.

Special Events

LiveFriday: Exposed
Friday 26 July, 7–10.30pm
Ashmolean Museum
www.ashmus.ox.ac.uk/livefriday
This month’s free LiveFriday event at the Ashmolean focuses on analogue photography. Join a photochain, strike a pose in a gallery and try some innovative analogue techniques.

Oxford Open Doors 2013
14–15 September
www.oxfordopendoors.org.uk
One of the country’s largest heritage events: explore venues across Oxford free of charge, from University buildings to college gardens.

Welcome to the Windsor Fete − a celebration of cake stalls and cricket, and the perfect setting for games of jealousy, deceit and revenge in Shakespeare’s battle of the sexes, performed by the Oxford Shakespeare Company.

Further information about the UAS conference series is at www.ox.ac.uk/uas_conference. Online registration for the October event will open in early August.
Horns a-plenty: PRM composer-in-residence
Nathaniel Mann in search of inspiration
FROM REEL TO REAL

The ethnographic sound archive at the Pitt Rivers Museum is inspiring listeners both close to home and far away, reports Spencer Lenfield.

In late November 2012, a group of Bayaka people walked for an hour through the rainforests of the Central African Republic to reach the nearest satellite internet connection. With them was Louis Sarno, a field recordist who has lived with the Bayaka since 1985. Once they arrived, they watched an online feed streaming video from 4,500 km away at the University’s Pitt Rivers Museum (PRM), where a torchlit night of exhibit exploration was unfolding to a four-hour sample of the hundreds of hours of Bayaka music that Sarno has recorded over the decades.

As they watched, pools of blue-white light flashed over the darkness of the exhibit cabinets as the incandescent, swift harmonies washed over the glass panes – and then, from the faraway speakers in Africa, back into the ears of the people who produced the music in the first place.

That night of torches and Bayaka songs at the PRM was curated by Nathaniel Mann, a sound artist currently spending 18 months as the museum’s composer-in-residence, and Dr Noel Lobley, the museum’s ethnomusicologist. The only requirement of Mann’s time at the museum – sponsored jointly by Oxford Contemporary Music and Sound and Music’s Embedded programme – is to draw inspiration from the museum into his work. They wanted to draw museum-goers into a culture where music works very differently, he explains: ‘These recordings talk about space ... Some Bayaka music is about the community moving through the forest, and it works differently from any kind of Western recording you’ll hear.’

The Bayaka experiment was possible only because of the recent conclusion of the Reel 2 Real project, which transferred the vast amount of analogue anthropological audio held by the museum into digital formats that could then be stored and presented online. The archive’s earliest items date to 1912 and had to be transferred from delicate wax cylinders by specialist engineers. The same was true of sounds ‘trapped’ in other outdated media like open reels and audio cassettes. Dr Lobley explains that the goal was to increase access to a little-known but immensely valuable part of the museum’s collections; from the beginning, the PRM wanted to ‘get a very good selection of it available online that we could then point towards as a kind of introduction to the collections, and attract researchers, the general public and other interested parties as well’.

Reel 2 Real includes music and sounds from cultures from around the entire globe, some of which have been transformed or endangered since the time when contributing researchers first made recordings of their music. Louis Sarno’s 1,500 hours of Bayaka recordings are one example; so are Patti Langton’s cassettes of music from what is now South Sudan, Father Damian Webb’s reels of children’s songs around Europe, and Raymond Clausen’s wax cylinders from the remote islands of Vanuatu. ‘Music and sound played a crucial role in some of these communities’, Lobley notes. ‘It’s important that people know that music and sound are part of the recording procedures of anthropologists.’

Mann, for his part, has been drawing inspiration from the archive and incorporating its ideas into his work while at the museum. ‘The fragility, the precariousness of the media relates to issues of memory, which is something that’s very important to me’, he says. ‘I’m interested in how memories fold in, collapse, transform, merge and subside.’ In addition to co-creating Sound Galleries, a short film of the Bayaka music night in November, Mann has commissioned a sound collage compiled from recording errors caught on tape in the archive, and is currently working on creating giant versions of voice disguisers (e.g. kazooos) from the museum’s instrument collection. ‘My compositional process is becoming object-oriented in some sense more than it was, and I think that’s a direct result of working at the Pitt.’

You can watch Sound Galleries at http://vimeo.com/55035411. The Reel 2 Real website is at http://web.prm.ox.ac.uk/reel2real and Nathaniel Mann’s blog during his residency at the PRM is at http://pittriversmann.blogspot.co.uk. Read the museum’s sound blog at http://pittrivers-sound.blogspot.co.uk
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WHY AM I HERE?

BARRY COOTE
Home Bursar, Wolfson College

Tell us a little about Wolfson College
In 1965 the University founded Iffley College for members of academic staff who held no college fellowship. Sir Isaiah Berlin became its first President in 1966 and, through his efforts, generous benefactions were received from the Wolfson Foundation and the Ford Foundation. These enabled the College (renamed Wolfson) to also make provision for graduate students from October 1968. The college buildings, designed by architects Powell and Moya, were ready for occupation in 1974 and the college received its Royal Charter in 1981.

Wolfson is the largest graduate college at Oxford, with over 600 graduate students and more than 100 full- and part-time staff. It’s set in about 14 acres on the River Cherwell and has a sports field, punt harbour, allotments and two meadows designated as Sites of Special Scientific Interest. I believe we’re unique in providing single, couples and family accommodation all on one site, so we have a very diverse, international population of students of all ages who can bring their families.

What does being Home Bursar entail?
I ensure the students are well looked after and provided with all they need to give them the best chance of success in their studies. We see the students, Fellows and staff as our customers and my team delivers the front-line services such as housekeeping, building maintenance, grounds maintenance, lodge, accommodation office and the college nursery. We’re very informal and only have one Common Room and no High Table in Hall, so students and staff meet in these areas on a daily basis.

As a qualified building surveyor I’m also heavily involved in our new building and refurbishment projects. Over the last five years we’ve completed two new buildings, refurbished three accommodation blocks, built a complete new main kitchen and servery and made many other smaller improvements.

What’s your favourite part of the job?
The day-to-day interaction with students and staff. I like to be busy and that’s certainly the case. Managing the largest team of staff in the college has its challenges but I have a very hardworking, dedicated team and a very supportive bursar and college president.

Childhood ambition? And your first job?
I wanted to be a professional footballer – that was all we ever did when I was young, played football. I had trials for a couple of teams including Arsenal but never made the grade. I played local football for years – something I really enjoyed – but I trained and worked as a plumber for about eight years when I left school.

So how did you get from there to here?
I was working for South Oxfordshire District Council first as a plumber, then as a technical officer (basically checking repairs to Council property). They were looking for a trainee building surveyor so I applied and was a bit surprised when they offered me the job. I had a young family and had to take a big pay cut but I went back to studying part-time and after seven years gained a BSc (Hons) in Building Surveying. I worked for the Council for 13 years, then at Oxford and Cherwell Valley College as Estates Manager and then moved eight years ago to Wolfson.

Haven’t you recently been doing some building at Wolfson?
Yes, we have a fantastic new auditorium, which is phase one of a new Academic Wing. It seats 155 and is very energy efficient, with the heating and cooling being provided by air source heat pumps. The building’s tower acts as a chimney and draws fresh air from large vents in the basement; it’s then heated or cooled before entering the auditorium through vents under every seat. The building also has four seminar rooms and offices. We’re already well underway with plans for phase two, which includes an extension to the library, refurbishment of part of the old library and a new café area.

What would your friends be surprised to learn about you?
When I was at school I had a paper round and delivered papers to Robert Maxwell (the publisher) who then lived in Headington Hill House (now part of Oxford Brookes). I remember I had a separate bag just for his papers. At the time he was chairman of Oxford United FC and some mornings we would have a quick chat about the game at the weekend. He would say ‘What’s the score going to be then, boy?’ or words to that effect. He was very big and quite frightening.

VIEWFINDER

WHERE’S THIS SPECTACULAR STAIRCASE? ANSWER ON P13.