Makespace a place to inspire creativity
Red lion roars: A long-hidden Cambridge gem has been given a new home by Cambridge University Rugby Union Football Club. The red lion sculpture which had adorned Lion Yard shopping centre until its removal some years ago now sits in the club’s Grange Road ground. Nick Bennett, the club’s chairman, said: “The red lion is our symbol and we see it reflected everywhere in the club. We hope it will bring us more luck in our future Varsity matches.”

LEGO Pompeii: A little piece of Cambridge – in the form of Professor Andrew Wallace-Hadrill – has been immortalised at the exhibition LEGO Pompeii. Made using more than 100,000 bricks the exhibition opened in January at the University of Sydney’s Nicholson Museum. In a nod to his hugely popular BBC documentary on Herculaneum, Wallace-Hadrill can be spotted doing a piece to camera in Pompeii’s Forum. The exhibition runs all year.

Featuring events from astronomy to zoology, the Cambridge Science Festival takes place from 9-22 March this year. The festival provides an opportunity for everyone to explore and discuss science with our renowned scientists and stars of the future. If you would like to volunteer and be part of this event, contact the festival organisers at: csf@admin.cam.ac.uk.

Clare College boatman, Anton Wright, is helping a group of children from Parkside Community College get to grips with rowing. They are helping to repair the boat he used in his 2013 World Record row on the Amazon. They will also learn to row during the Parkside Rowing Challenge so that, in April, they can use it to row along the Thames. Wright says the project is aimed at giving the children “skills they can use in the future”.

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How we capture, analyse, curate, store, search and share data is one of the 21st century’s major challenges. Paul Kirkley finds out how Cambridge researchers are rising to the challenge of ‘big data’.

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Front cover photograph: Chris Loades
Up and running: new green Data Centre

THE UNIVERSITY’S NEW energy-efficient data centre which aims to significantly cut power consumption is now up and running.

The two-storey facility, which houses four data halls over 2,200m², is located on the West Cambridge Site and centralises many of the University’s machine rooms into one secure, managed facility.

Ian Tasker, West Cambridge Data Centre manager, said: “The West Cambridge Data Centre project marks out the University as a clear early-adopter of the latest energy-efficient technology, showing what can be achieved and leading the way for other HE establishments to follow.”

Initially, the West Cambridge Data Centre will serve the current and future needs of University Information Services and the institutions for which it manages IT infrastructure, the High Performance Computing Service (HPCS), and the administrative needs of Cambridge Assessment, which manages the University’s three exam boards.

The main power is supplied via dual 11,000KV feeds from UK Power Networks, with back-up power guaranteed with enough fuel to run for 72 hours. It also uses a “cooled water” method as opposed to energy-hungry chillers to keep the system working at the right temperature.

The facility has the capacity for many more racks to be fitted as demand increases. This allows for the addition of the latest technologies as they emerge.

Energy efficiency for data centres is measured by Power Usage Effectiveness (PUE). The ‘ideal’ PUE is 1.0 – the West Cambridge Data Centre is expected to deliver a PUE of 1.2. The rating is not far off that of large global organisations such as Google and Facebook which have made significant investments in their green data centres.

Tube map shows the way ahead for the University’s network

THE ICONIC TRANSPORT FOR LONDON Tube map has been given the Cambridge treatment to show how far the University’s fibre-optic network stretches.

With a nod to classic re-interpretations of the map, such as artist Simon Patterson’s The Great Bear, the University Information Services (UIS) transformed it to show the extent of its Granta Backbone Network (GBN).

Jon Holgate, Head of Networks for UIS, said: “The University of Cambridge has a world-class, city-wide fibre-optic network, stretching more than 45 kilometres and linking two hundred collegiate institutions.

We created the ‘underground map’ to show the extent of the service that we provide, and hope that it offers an interesting and informative presentation.”

Like Patterson’s artwork, which replaces London’s stations and lines with the names of saints, artists and stars of TV and film, the GBN stylised map exchanges the names of routes and stops with Cambridge-themed titles like Bumps and Bruises, The Turing Loop, and Book Line & Thinker.

A version of the map is available by going to: www.ucs.cam.ac.uk/network/other/images/GBNMapV18a.pdf.
Celebrating Cambridge old and new

ANNIVERSARY celebrations for one of the world’s most iconic buildings – and for two of Cambridge’s youngest colleges – are taking place this year.

King’s College Chapel is marking its 500th anniversary, while Wolfson and Lucy Cavendish celebrate their 50th years.

The Chapel was completed in 1515 after decades of work that was initiated by Henry VI in 1441.

Several events are planned throughout the year including a series of concerts performed in the chapel. A new book about the chapel has been published containing 17 essays and illustrations exploring the artistic, musical, religious and cultural history of the building.

Specially created stamps are also being made available. For more information go to: www.kings.cam.ac.uk/chapel/500.

Wolfson was the first Cambridge college to accept men and women as students and fellows on an equal basis.

President of Wolfson, Professor Sir Richard Evans, said: “The 50th anniversary provides a wonderful opportunity to celebrate the college’s history and achievements since the University founded it as University College in 1965.

“Then it only had one building and just enough money for ten years, so this is also an occasion on which to thank the generous benefactors who have made the college such a success, and to look forward to building on our achievements for the next 50 years.”

An extensive and varied programme of events to mark the college’s 50th anniversary has been planned, including a garden tea-party for Wolfson staff and a series of high-profile lectures on subjects from human rights law to fashion.

Wolfson is also marking its birthday with a ‘50th Anniversary Campaign’ that aims to raise £5 million for bursaries, scholarships and improved accommodation. For more on the anniversary go to: www.wolfson.cam.ac.uk/50.

The vision for Lucy Cavendish came during a lunch meeting between three women academics in 1950 and it blossomed into a college in 1965.

The college is marking its 50th anniversary with a series of events, including a concert on 7 March featuring the Lucy Cavendish Singers. More information can be found at: www.lucy-cav.cam.ac.uk/50th.

UK-wide REF assessment confirms Cambridge’s global strengths in research

ALMOST NINE OUT of ten of Cambridge’s submissions for the 2014 Research Excellence Framework (REF), which assesses the quality and impact of research at UK universities, were rated ‘world leading’ or ‘internationally excellent’.

The results of the REF, published in December, show that 47 per cent of Cambridge’s submissions were awarded the highest rating of 4* overall (‘world-leading’), an increase from 32 per cent in 2008. A further 40 per cent of submissions were rated 3* (internationally excellent).

“These results demonstrate Cambridge’s strength in depth across research, in particular confirming our global leadership in the pure and applied sciences, clinical medicine, and in subjects as diverse as the Classics and business and management studies,” said Professor Sir Leszek Borysiewicz, Vice-Chancellor.

For the REF, each academic discipline is assigned to a ‘unit of assessment’. Each unit is judged by three criteria – Outputs, Environment and Impact (defined as ‘an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia’).

The results are used by UK higher education funding bodies to allocate research funding to universities.

Among the case studies submitted by Cambridge for Impact was research that led to Lemtrada, a new drug to treat multiple sclerosis. The drug is based on a long-standing programme of research, which this year received approval by the National Institute for Health and Care Excellence (NICE).

For more information, visit www.cam.ac.uk/research/impact.

WOW set to inspire all

THE WOMEN OF THE WORLD Festival will showcase a range of events at the Cambridge Junction on Sunday 8 March. It promises a day of inspirational talks, debates and performances, focusing on science, sport, health, and education.

Talks include a discussion between panels in Cambridge and London that will examine the difference education makes to women worldwide. Mariam Khalique, the former teacher of Nobel Prize winner Malala Yousafzai, will attend.

For more information, visit www.wowcambridge.cam.ac.uk
New Pro-Vice-Chancellors appointed

THE UNIVERSITY COUNCIL has appointed three new Pro-Vice-Chancellors who will take up their positions over the next 12 months. They are Professor Eilis Ferran, Professor Chris Abell and Professor Nigel Slater.

They will join Professor Graham Virgo, Pro-Vice-Chancellor for Education, who took up his post in October last year, and Professor Duncan Maskell, when he starts as Senior Pro-Vice-Chancellor in August 2015.

The five Pro-Vice-Chancellors are responsible for taking forward the University’s strategy and policy development, and supporting the Vice-Chancellor in his or her role in providing leadership to the University. Each post covers areas of strategic importance to the University.

Professor Ferran, whose appointment takes effect on 1 October 2015, will focus on human resources and provide oversight of the University’s international affairs. She is currently Professor of Company and Securities Law in the Faculty of Law, chair of the Faculty and a Professorial Fellow at St Catharine’s.

Professor Abell will take up his appointment on 1 January 2016, focusing on research. He is Professor of Biological Chemistry in the Department of Chemistry and a Fellow of Christ’s. In 2013, he became the University’s first Director of the Office of Postdoctoral Affairs, set up to support the postdoctoral community at Cambridge.

Also taking up post on 1 January 2016, Professor Slater will focus on enterprise and regional affairs. He is currently Head of the Department of Chemical Engineering and Biotechnology, and is Professor of Chemical Engineering and a Fellow of Fitzwilliam.

They will take over from Professor Jeremy Sanders (Institutional Affairs), Professor Lynn Gladden (Research) and Dr Jennifer Barnes (International Strategy).

Members of the Regent House are now able to vote online

THE DEFAULT METHOD of voting in ballots of the Regent House is now online, having come into effect on 1 January, 2015.

Members of the Regent House who wish to use the online voting system need take no further action, although they may wish to check that they know their CRSid (Raven username) and Raven password.

Regents can opt out of the online system and register to continue voting by postal ballot by early November each year. They will be opted out for one year, until the following promulgation of the Roll of the Regent House in November, and can renew the opt-out request each year. Members who opted out by 12 December 2014 will receive voting papers and supporting materials by post for ballots taking place before November 2015.

In addition to notices of ballots being announced in the Reporter, members of the Regent House will also be notified of them by email, with the weblink for voting being made available immediately before the email notification is sent out.

The online process will start at the same time as voting papers are distributed in hard copy. Flysheets and other election materials will be accessible via the web interface at which online votes will be cast.

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FROM HONG KONG’S DimSumLabs and South Africa’s Ductape to the Inventor’s Cave in Mexico and Tinkartank in Norway, ‘makespaces’ are springing up throughout the world.

The 21st century version of the garden shed, makespaces – or hackspaces as they’re also known – are places people go to meet and work on physical projects. Often community run, sociable spaces for sharing tools and exchanging skills, they are places for pioneers, prototypers, or people simply pursuing the pleasure of making things.

There are now, according to Hackerspaces.org, at least 1,854 of them, and Daniel Charny, Professor of Design at Kingston University and curator of the V&A’s blockbuster exhibition The Power of Making, believes this resurgence of interest in making is important.

Although everyone can make, most people – especially those who live in cities – do not. But, he argues, knowing how to make is one of humanity’s most precious resources, a powerful way of solving problems and shaping our world.

“Making is a type of applied thinking that sits at the core of creating new knowledge of all kinds, and the sensibilities of making should actively be made a part of our future,” he says.
Cambridge’s own Makespace opened in 2012 in the Institute for Manufacturing’s old robot lab on Mill Lane, set up by technology consultant Laura James, Simon Ford and Jonny Austin (both now at ARM).

For Austin, then an engineering student at Cambridge, the drive to make Makespace happen came as much from his Antipodean roots as his need for an antidote to equations.

“Studying engineering involves a lot of mathematical theory, but actually it’s really nice to make stuff with other people,” he explains. “The fundamental drive was making things in a sociable way. And sharing what you’ve made, and learning from people, is really fun.”

Make do and mend
As a child growing up in New Zealand, Austin absorbed the country’s can-do spirit: “They have a real ‘let’s do it’ attitude. If you want a new shed, or a fence for the school, you just have a ‘working bee’, people show up and you build it. Kiwis just do it – and if it doesn’t work you fix it. That’s important to me, and that vibe is very prevalent at Makespace.”

In fact, it’s a vibe you notice as soon as you walk into Makespace and hang up your coat – on the coat rack made by one of Makespace’s 225 members, Steve Upton.

“Rather than buy a coat rack I decided I would go with the spirit of Makespace and make one,” he says on his blog. And rather than simply screwing hooks onto a board, he decided to build in a wooden Makespace logo using the router.

Since then, Austin and the team have built up an A to Z of tools, including sanders, saws and lathes for wood, a metal mill and metal lathe, 3D printer, laser cutter, glass kiln and A0 printer as well as craft kit such as sewing machines, knitting machine, vinyl cutter and T-shirt press.

“We’re constantly reviewing and refreshing,” he says. “It’s led by the community and, as directors, Simon, Laura and I make sure we seed things that will help us grow into a new community. Buying the T-shirt press and sewing machines is an attempt to open us up to new groups of members.”

The diversity of its tools attracts a broad spectrum of members. Some users are local residents, others are staff and students from Cambridge or Anglia Ruskin University. “We have students from Chemistry, Engineering and Architecture,” Austin says, “plus a good number from the Computer Lab who want to use Makespace as a way of extending their work into the physical world.”

The things people make – from energy-generating kites to home power monitors – and the reasons they make are equally varied. Some are hobbyists or bring their children to the Family Makers session on Sundays, others are craft makers, have a start-up in mind or use Makespace as their company’s R&D lab.

All seem driven by a basic human urge to make. “We are very wired to appreciate physical objects, and to me there’s something very differently satisfying about holding something I’ve made,” Austin says.

“The other thing that’s interesting about making is the resources we have allow you to make tools, which is fascinating because a lot of members use Makespace to make tools that allow them to do their primary task better. It’s like our ancient ancestors thinking ‘this manual task could be done better if I had a tool’.

As well as sharing the satisfaction of having made something, members also share their time and expertise. Volunteer-led, Makespace is good at providing training for members, and each piece of equipment has an associated training routine plus a group of volunteers willing to train new users.

During Makespace’s first year, volunteers ran more than 145 training sessions, over 480 events and 100 tours. And between them the Makespace community learned hundreds of new manufacturing skills, some of which could help improve the health of thousands of people in the developing world.

Making a difference
One of those who learned a new skill at Makespace was Gates Scholar and third-year PhD student in Chemical Engineering and Biotechnology, Alexandra Grigore. Passionate about making technology accessible in developing countries, she is one of four Cambridge students behind the social enterprise SimPrints.

Set up in 2013, SimPrints provides identification solutions for developing countries. Its first application is in healthcare: a fingerprint scanner that can integrate with mobile health apps used by community health workers across the developing world.

“The main problem with these mobile health apps is that they cannot identify people. Most people don’t know their exact date of birth, many countries don’t have registers of births, and the majority of the population – especially in rural areas – don’t have any identification,” Grigore explains. “So we came up with the idea of using fingerprints as a unique identifier.”

With $400,000 funding from the Bill & Melinda Gates Foundation and ARM, the team developed a low-cost scanner for NGOs which they have been field-testing in Bangladesh. And the Makespace community played a vital role in the process.

“When I joined Makespace I asked everybody for help, and they were super helpful,” she says. “Someone stayed there with me until 2am teaching me to do surface mount soldering. Another member who’s an embedded software developer worked with me for hours dictating code. Others helped me design the circuit and make the casing on the CNC mill.”

“At one point I had a team of six people from Makespace working on the project, especially in the run up to our trip to Bangladesh. It wouldn’t have been possible to achieve what we have without the Makespace community, because the people there love building stuff and get a kick out of teaching people.”

It’s something Austin hopes can continue to grow when Makespace moves out of the old robot lab in December as the site is prepared for redevelopment.

“We’d really like to be in the new development on that site. Makespace feels very established there and it’s right to have it in the city centre so people can drop in. A lot of our current limitations are the result of not feeling that we can commit long term to the space,” he says. “We proved the concept works, now we need a permanent home to take it on.”
Too much information?

Big Data is a term used more and more frequently but what does it really mean and what challenges and opportunities does it present to the University? Paul Kirkley investigates the landscape of information.

Dr Clare Dyer-Smith, coordinator of Cambridge Big Data. "There are more than 100 groups represented in the research initiative, from over 50 departments across the University."

This interdisciplinary crossfire of ideas also serves to highlight a common misconception about big data. Because it isn’t just about big numbers – it’s also about putting the data into context.

"You may have very large amounts of data coming in from an experiment, so how you deal with those really fast streaming rates is one of the challenges of big data," says Dyer-Smith. "But as you move into looking at large amounts of data on people – the humanities context – it’s also about how you can use the information to do useful things."

Which is not to underestimate just how big those numbers can get – and how much processing power is needed to crunch them. In astrophysics, we’re likely to be talking in terms of teraflops (that’s one trillion arithmetic operations per second). Fortunately, the University has responded to this need with a brand new purpose-built Data Centre that, among its other attributes, is one of the most environmentally efficient in the UK.

“This facility is an enabler to allow the University to really start progressing with things like big data,” says Data Centre manager Ian Tasker. “People can focus on their bit of the jigsaw puzzle and not have to worry about a building and a facility. We want to take that pain away from them – give them the facility they need to go off and do world-leading research.”

Moving from data on disks to pages in books, and back again, takes us to Dr Christopher Stokoe, head of development for Cambridge Digital Library Programme. For a man with a computer science background, Stokoe is an evangelist for the ‘analogue big data’ store that is the ‘analogue big data’ store that is the University Library.

“Just as water is wet in a way that individual water molecules aren’t, big data can reveal information in a way that individual bits of data can’t”

PROFESSOR ANNA VIGNOLES, director of research at the Faculty of Education, uses “comprehensive, longitudinal data” to track the performance of children through the English school system.

With around eight million children in school, the data sets are “big by social science standards”, and can help illuminate, for example, the correlation between pupils’ socio-economic backgrounds and their academic achievement – information that can then be fed back to policymakers and, ultimately, the classroom.

Vignoles believes Cambridge is well placed to drive forward understanding – and reap the rewards – of big data. “Having a university where you have leading researchers across a number of fields – life sciences, physical sciences, social sciences – the opportunities for interdisciplinary research, and the opportunities for methods to be transplanted from one discipline to another, are great,” she says.
Part of Stokoe's mission is making the library's treasures "discoverable to the world" through digital means. But for a legal deposit library like the UL – with a statutory duty to preserve the nation's published output for the future – perhaps a bigger challenge is how to collect and curate the deluge of data now created every second.

"Analogue data is now only 6 per cent of the total data output of our species," says Stokoe. "And 94 per cent of our output is ephemera – it's Twitter, it's Facebook, it's blogs." Of course, it is tempting to think that much of this information is worthless – after all, you can hardly compare a teenager's Snapchat conversations with the writings of Charles Darwin. Or can you?

"Darwin's personal correspondence, which we hold at the library, was the day to day ephemera of Darwin's life," says Stokoe. "More often than not he was having a bit of a moan about his health. But if you want the first traces of his willingness to admit the idea of the origin of the species might not be immutable and defined by God, those letters have those traces.

"The equivalent of that today is email correspondence. Or maybe that's the equivalent 10 years ago – maybe now it's Instant Messenger, it's Skype. And all of those things will be lost in time if we don't think about, firstly, how to understand whether those conversations are taking place and, later on, whether we should capture them, how we capture them, and whose role that is."

These are just some of the many questions kicked up by the rise of big data. But behind every ethical, practical and technological challenge, lies the promise of a greater understanding of how the world works – and perhaps even an understanding of how to make it better. Maybe there's no such thing as too much information after all.

**Development data**

Africa’s Voices, a project run by the Centre of Governance & Human Rights, studies listeners' SMS interactions with African radio stations in a bid to learn more about public opinion and the localised conversations taking place across the continent on everything from contraception to Ebola.

Researchers discovered that the most useful information came as open answers in a free text format, often in local languages. This meant finding ways to extract the meaning from these texts without going through the laborious process of translation, interpretation and coding.

Dr Claudia Abreu Lopes spent three months working with IBM at their research lab in Kenya doing just that. "Everyone who works with big data understands that it's not only about the tools and the computer capacity to extract information. It's also about the ability to put this information into context – otherwise you'll be lost in the data," she explains.

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A passion for fungi led Cambridge mycologist Dr Dillon Weston to ever-more inventive means of trapping fungal spores, even from the open window of an airship on its maiden flight in the first half of the 20th century.

Louise Walsh speaks to Dr Ruth Horry about his fascinating story

ON A JULY DAY IN 1930, British airship R100 took to the air from a Bedfordshire airfield on its first transatlantic flight. As it made its way across the Atlantic Ocean, 2,000ft in the air, a window opened and Squadron Leader Booth, wearing a pair of rubber gloves, leaned out. In his hand was a Petri dish.

Below, on the HMS Ausonia, Cambridge mycologist Dr W.A.R. Dillon Weston watched through the porthole of his cabin. It was his Petri dish – in reality a spore trap capturing minute...
particles released from fungi and carried with the wind – that Booth was holding.

“The thrill of the airship excited Dillon Weston as much as the thrill of spore chasing,” explains Dr Ruth Horry from the Department of History and Philosophy of Science, who has been researching his story.

This adventure was set against the backdrop of what Picture Post magazine declared a “man-versus-fungi battle”. Wheat rust had wiped out enormous areas of American and Canadian wheat production and coffee rust had destroyed entire plantations in Ceylon.

“Those who know most about them are still frightened of the fungi,” said Picture Post.

Dillon Weston and fellow scientists suspected that one route of spore transmission over long distances was through air currents. But how to test this? “He was carrying out his studies in the 1920s and 1930s when research methodology was in its infancy,” says Horry. “Where his creativity literally took off was in realising that to test the atmosphere for spores he had to invent ways to catch them, using aeroplanes and home-made Vaseline spore traps.”

“At first sight it may appear ludicrous that the aeroplane can have any significance in biologic research. Is it, however, absurd?” asked Dillon Weston in 1929. Intrigued by the finding of some of his American colleagues that aircraft-borne spore traps could detect spores at 11,000 feet, Dillon Weston persuaded friends in the Cambridge University Air Squadron to fly over the Cambridgeshire countryside at various heights. Although his results were as much about devising the perfect spore trap as about the spores themselves, he concluded that the air was a viable medium for spores to be transported.

“Devastating yet invisible plant diseases were an important enemy to conquer and new aviation technologies were vital in winning the war against them,” explains Horry. “Newspaper coverage of the time showed that the aeroplane can have any role in the distribution of fungal spores.”

Although the experiment was never to be repeated, Horry believes that it is representative of a wider concept in science: the idea of ‘piggybacking’ small-scale experiments on larger scale projects. “Dillon Weston’s scientific work aboard R100 was a small-scale experiment that required complex technologies to reach its location of study,” she says.

“As fascinating as this story of airships and fungi is, its wider value has been in revealing that historians need a better understanding of scientific experiments that are dependent upon large-scale, external technological programmes for their existence.”

She points towards astrobiology experiments to study the origins of extraterrestrial life on board early NASA space flights as a more recent example of piggyback science.

She adds: “The spore experiment’s subsequent disappearance from view acts as an indicator that other now-forgotten examples of piggyback science could have been attached to large scale 20th-century technologies. It may just require us to locate our historical rubber gloves, take to the air and chase them down.”

Glass pathogens: clear and present danger

AT THE SAME time as he saw the devastation to crops and financial ruin that fungi could cause, Dr Dillon Weston was mesmerised by their splendour. “People thought fungi repulsive, and I wanted to show how beautiful they can be,” he wrote.

Take Phytophthora infestans, the potato blight pathogen, responsible for destroying potato crops across Europe in the 1840s, contributing to mass starvation and the Great Irish Famine. Dillon Weston used the pathogen as the basis of an intricate glass model the height of a hand’s span, 400-times larger than the actual organism. Its delicate tendrils stretch upwards, crisscrossing each other in a complex and fragile array of strands topped by tiny oval heads crammed with spores. It is beautiful, but this beauty belies the pathogen’s legacy of death.

“He crafted some of his models in microscopic detail, showing fungal processes like spore formation and release,” explains Dr Horry, who has been researching the life stories of objects that become part of museum collections.

His legacy of over 90 models is now housed in the Whipple Museum of the History of Science in Cambridge. Many are impeccable reproductions in microscopic detail of fungi such as those responsible for the mould commonly seen on bread, the fungus that sweetens wine and the leaf spot found on sugar beet. Others are life-sized interpretations of woodland fungi, brightly coloured in russet and ochre, and all would have been an invaluable teaching aid for his students who rarely had access to three-dimensional representations of the organisms they were studying.
Lucy Cavendish and Pembroke welcome journalist and former MP as heads of house

THE JOURNALIST JACKIE ASHLEY has been elected the new President of Lucy Cavendish. She will take over from Professor Janet Todd OBE in October this year.

Ashley, 60, joins Lucy Cavendish after a distinguished career as a journalist and commentator for ITN, Channel 4 News, the BBC, New Statesman and the Guardian. She also sits on several boards, including University College London Hospitals’ Biomedical Research Council, Birkbeck College and Women in Sport.

“All my working life, I have been campaigning for better rights for women. I’ve been involved in campaigns for equal pay, carers, older women, and on health issues: I could not be more delighted to take up the challenge of leading this outstanding college,” Ashley said.

“At a time when access to elite institutions has become such a hot political topic, and when women are still earning substantially less than men for similar jobs, I cannot think of a more exciting place to be working. There is nowhere quite like Lucy Cavendish College. I am proud to be becoming its leader and champion.”

This October will also see a new head of house at Pembroke, when Lord Smith of Finsbury succeeds Sir Richard Dearlove, who retires this summer.

Best known as the MP for Islington South and Finsbury – a constituency he represented from 1983 to 2005 – Chris Smith was created a life peer in 2005, sitting in the House of Lords as an independent peer.

A keen mountaineer, he was the first MP to ‘bag’ all of Scotland’s munros. Smith was Chairman of the Environment Agency from 2008 to 2014, and has been the Chairman of the Advertising Standards Authority since 2007.

He was a student at Pembroke, where he took a double first in English, and was President of the Union Society. He has been an Honorary Fellow of Pembroke since 2004.

“I love Pembroke. I have held it a privilege to have maintained my connection with the college through the years, and I am honoured to have been asked to lead the college community as Master,” he said.

“I look forward to helping our Fellows, students and staff build on the successes of recent years at a period of real opportunity and significant challenges for Pembroke and Cambridge.”

IN BRIEF

- Professor James Crawford has been elected a judge of the International Court of Justice by the United Nations General Assembly and Security Council. A fellow of Jesus, Crawford is an international lawyer and a senior fellow – and former director – of the Lauterpacht Centre for International Law at Cambridge.
- Fitzwilliam welcomes the Revd Helen Arnold as Chaplain and Katharine Parton as Director of Music. A qualified social worker, Arnold was ordained in 2006 and was a tutor at Westcott House theological college. Parton studied at the University of Melbourne and made her conducting debut with Lyric Opera of Melbourne. She will take an active role in conducting and composing for Fitzwilliam’s chapel choir.
- Professor Tim Bussey (Department of Psychology) and his band Violet Transmissions have released a cover version of Thomas Dolby’s 1982 hit She Blinded Me With Science. Available on iTunes the song celebrates women in science with proceeds going to ScienceGrrl, a grass roots organisation that supports women in science.

New head for Architecture

DR WENDY PULLAN is the new Head of the Department of Architecture, where she takes over from Professor Koen Steemers. “I am delighted to become Head of Department at this time of growth and change in Cambridge’s Department of Architecture,” she said.

“Enhancing the contributions from our increasingly large number of graduate students and postdocs, the further development of new research and design teaching initiatives, and engaging with the opportunities for a larger building will dominate many of my efforts.”

Cardwell comes to Engineering

PROFESSOR DAVID CARDWELL has taken over from Professor Dame Ann Dowling as Head of the Department of Engineering. With more than 2,400 academics, students and postdocs it is one of the highest ranked engineering departments in the world.

“It would be easy to get complacent given this success, but I see a tremendous opportunity to take the department to a new level,” said Cardwell. “My aim is to do everything I can to allow everyone here to perform at their best, engage with real issues and make a difference.”

OBITUARY

Sir John Bradfield

SIR JOHN BRADFIELD, who has died aged 89, was Trinity’s Senior Bursar from 1956 to 1992.

His legacy, both in Cambridge and at Trinity, is enormous. “Many of the things that we now take for granted in Cambridge can be traced back to his inspiration,” the college said. Bradfield led the establishment of Trinity’s Science Park and the development of Felixstowe into Britain’s largest international port. He was instrumental in the foundation of Darwin College, and was chairman of the Cambridge University Hospitals Trust from 1993 to 1997.
Advertising on this page is open to University staff. The cost is £15 for a single insertion or £75 for six insertions. The deadline for the next issue is 15 March 2015. Please send your copy – no longer than 70 words – to the Editor at newsletter@admin.cam.ac.uk. We reserve the right to edit contributions.

HOUSES TO RENT (UK)

➔ Butley, Suffolk
Comfortable, spacious, well equipped cottage with piano in Butley, Suffolk. Available for Aldeburgh Festival, weekends and short breaks throughout the year. Close to Orford, Sutton Hoo, Snape and Minsmere. Sleeps up to eight. Call Miranda on (01223) 357035 or email info@butleycottage.co.uk. More information at www.butleycottage.co.uk.

➔ Cornwall
Traditional granite cottage in peaceful countryside between St Ives and Penzance. Sleeps five in three bedrooms, with comfortable sitting room, kitchen-breakfast room and bathroom. Sunny garden and off-road parking. Close to beaches and coves, coastal path, sub-tropical gardens, historic properties. Email Penny on pb29@cam.ac.uk or phone (01638) 507192. Details and photos at www.tinminerscottage.co.uk.

➔ Scottish Highlands
Highland holiday cottage with sea view near Helmsdale. Palm Tree Cottage Retreat. Sleeps four to six bedrooms (two double bedrooms and two small chair beds suitable for small children). £350 per week or £820 per month (if you mention this advert). Benefits include an open fire, 10 minutes walk to the beach, Wi-Fi, washing machine, dishwasher and bread maker. Ideal for a writing retreat, golf or fishing holiday. www.palmtreecottageretreat.com, tel: 07954 358174, email: carandlor@yahoo.co.uk.

➔ Southwold, Suffolk
17th century Leman cottage, three bedrooms, well equipped, Wi-Fi, in peaceful countryside. Off-road parking, enclosed sunny garden. Weekly lets in school holidays, flexible short breaks rest of year. Easy walk, cycle or drive to explore Heritage Coast, historic churches and more. Personally managed. One hour 40 minutes drive from Cambridge. More info and for more cottages sleeping two to eight see www.suffolkcoastalcottages.co.uk or phone Trish Gower on (01502) 478078.

➔ Yorkshire Dales
Beautifully refurbished cottage at Pateley Bridge on the borders of Yorkshire Dales National Park. Very comfortably furnished. Sleeps up to six in three bedrooms. Underfloor heating and log burner. Courtyard garden with studio. Linen and towels provided. Excellent local amenities, spectacular countryside and many wonderful places to visit nearby. Prices are £425–£695 per week with short breaks available. For further details and booking: www.cuckoocottageretreat.yorkshire.co.uk, email cuckoocottageretreat.yorkshire@gmail.com or phone 07528 595295.

HOUSES TO RENT (OVERSEAS)

➔ Athens, Greece
Beautiful fourth floor apartment with veranda in the city centre (Kypseli, Fokionos Negri area), furnished to a high standard. Contains double bedroom, study/living/dining rooms, kitchen, bathroom, storage and cloakroom. Close to amenities with easy access to the university, national library, archaeological museum and the historical centre. Ideal for visiting academics. Available January–June (negotiable). £400/month for one person, £600 for a couple, including bills. Contact Dr Anna Melidoni, amelidon@ebi.ac.uk.

➔ Provence, France
Large, comfortable flat in famous Côte Bleue resort of Carry-le-Rouet, close to Cassis, Marseilles (European capital of culture 2013) and all Provençal places of interest such as Arles, Avignon, Aix-en-Provence, St Rémy-de-Provence. Seafront, beach and coves within 100 metres. Excellent for swimming, snorkelling, scuba diving, sailing, walking and cycling. Thirty minutes from Marseilles airport or Marseilles TGV railway station. Sleeps six comfortably. Private parking, Wi-Fi network. Contact Anita Ogier on ao10001@cam.ac.uk.

➔ Amalfi Coast, Italy

SERVICES

➔ Cambridge Regional College
Art classes at Cambridge Regional College: Pottery, Digital Photography, Printmaking, Stained Glass, Start with Art, Creative Metal Craft, Jewellery, Creative Woodcraft. Classes start throughout the year. Visit www.camrco.ac.uk or call (01223) 226315.

VOLUNTEERS

➔ Volunteer with the University of Cambridge museums
Thinking about trying something with a difference and meeting new people? Whatever your experience and interests you’ll find a range of volunteering opportunities at the eight University museums and Botanic Garden. The next call out is for Summer at the Museums family programme, or why not sign up to our bank of events volunteers. Keep an eye on our Get Involved webpage: www.cam.ac.uk/museums-and-collections/get-involved.

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**PRIZES, AWARDS AND HONOURS**

**Awards**

- **Professor Phil Allmendinger** of the Department of Land Economy has been elected a fellow of the Academy of Social Sciences.
- The Society for General Microbiology’s 2015 Prize Medal has been awarded to **Sir David Baulcombe** of the Department of Plant Sciences.
- As well as being awarded an honorary doctorate from the University of London, **Professor Mary Beard** of the Faculty of Classics has won the best presenter category in Sky’s Women in Film and TV awards.
- **Dr Sarah Bohndiek** of the Department of Physics has been awarded the European Commission 2014 Marie Skłodowska-Curie actions prize, and the 2014 WISE Research Award. Sponsored by the Institution of Engineering and Technology and the Wellcome Trust, the WISE award was for her research using physics and engineering to develop a tool for early cancer detection.
- **Awarded annually since 2001 for outstanding scholarship, the Philip Leverhulme Prizes** for 2014 were announced in December. The 30 prizes are worth £3 million and seven were awarded to Cambridge academics: **Dr Tim Button** (Faculty of Philosophy); **Dr Hazem Kandil** (Department of Sociology); **Dr Elizabeth Murchison** (Department of Veterinary Medicine); **Dr Renaud Morieux** (Faculty of History); **Dr Sarah Nouwen** and **Dr Michael Waibel**, both from the Lauterpacht Centre for International Law; and **Professor Richard Samworth** (Department of Pure Mathematics and Mathematical Statistics).
- **Kevin Brindle** (Department of Biochemistry) has been elected a Fellow of the European Academy of Cancer Sciences.
- **Dr Cathy Burke** (Faculty of Education) has won the History of Education Society UK’s Anne Bloomfield prize for her book *A Life in Education and Architecture. Mary Beaumont Medd 1907–2005*.
- **PhD student Richard Butler** (Department of History of Art) has been awarded the Hawksmoor Medal by the Society of Architectural Historians of Great Britain for his essay on the Irish courthouse.
- **Dr Weiwei Cai** of the Department of Chemical Engineering and Biotechnology has been awarded the 2014 Masao Horiba Award for his pioneering work in the theory of nonlinear tomography and his track record of scientific innovation.
- **Millennium Scenes** by **Richard Causton** (Faculty of Music) was named record of the year in the contemporary composers category in the *Sunday Times* top 100 records of 2014. According to the judges: “Causton is among our most imaginative composers, as this sequence of five works makes clear. The powerful orchestral diptych of Millennium scenes has a fierce ‘social criticism’ opening, flaunting declamatory unison strings, screeching piccolos and clubby thuds.”
- **Dr Colm Durkan** of the Department of Engineering has been elected a Fellow of the Institution of Engineering and Technology.
- **Professor Philip Gibbard** (Department of Geography) has been awarded the James Croll Medal by the Quaternary Research Association in recognition of his outstanding contributions to the field of quaternary science.
- **Professor Deborah Howard** of the Department of History of Art has been awarded an Honorary Doctorate of Letters by University College Dublin.
- **Professor Gary Hunt** of the Department of Engineering has received the Telford Gold Medal for his work on the influence of room geometry on the overturning of smoke owing to a floor fire.
- **CIMR’s Professor Jim Huntington** and the team at X01 Ltd received a *Cambridge News* Top Innovation award for the development of a new synthetic antibody that could prevent heart attacks and strokes without causing bleeding.
- **Dr Sachiko Kusukawa** (Faculty of History) has been awarded the 2014 Pfizer Prize by the History of Science Society for her book *Picturing the Book of Nature*. Described by the prize committee as “a work as erudite as it is lucid”, the book explores how pictures constitute knowledge and how images entered printed books in sixteenth century texts on human anatomy and medical botany.
- **Professor Sir Geoffrey Lloyd** of the Faculty of Classics has won the 2014 Prix international from the Fondation Fysens. Published to much acclaim last year, *His is for Hawk* by **Dr Helen Macdonald** (Department of History and Philosophy of Science) has won the Costa Biography Award and the Samuel Johnson Prize for Non-Fiction. Describing it as “a book unlike any another”, chairman of the Samuel Johnson Prize judges Claire Tomalin said: “Writing about wildlife and the environment has never been better or better informed than this.” The memoir tells the story of how she bought Mabel, a goshawk, and began training her in Cambridge as a means of coping with the death of her father.
- **Professor Clément Mouhot** of the Department of Pure Mathematics and Mathematical Statistics has been awarded a Whitehead Prize by the LMS for his fundamental mathematical contributions to the foundations of statistical mechanics and the Boltzmann equation. Mouhot also won the 2014 Prix de Madame Victor Noury, a major award given annually to a French scientist under the age of 45.
- **Based on her PhD at the Faculty of Classics, Dr Alex Mullen’s** book *Southern Gaul and the Mediterranean: Multilingualism and Multiple Identities in the Iron Age and Roman Periods* has been awarded the 2014 James Henry Breasted Prize by the American Historical Association. Mullen is now a postdoc at Oxford.
- **Dr Joan Oates** of the McDonald Institute for Archaeological Research has been awarded the 2014 Grahame Clark Medal by the British Academy for her work on Mesopotamian prehistory and ancient Near Eastern Civilisation.
- **Bronze Age Bureaucracy: Writing and the Practice of Government in Assyria** by **Professor Nicholas Postgate** (Division of Archaeology) has been awarded the 2014 Frank Moore Cross Award by the American Schools of Oriental Research.
- **Dr Markus Ralser** of the Department of Biochemistry has been awarded the €10,000 South Tyrolean Science Prize.
- **The sixth book of poetry by Professor James Russell** (Department of Psychology) – *A True-Dream Run* – is among the winter selection of the Poetry Book Society.
- **Dr Oren Scherman** of the Department of Chemistry has been awarded the 2014 Bob Hay lectureship by the Royal Society of Chemistry’s Macrocycles and Supramolecular Chemistry group.
- **Professor Yasir Suleiman** (Faculty of Asian and Middle Eastern Studies) has been elected a Fellow of the Royal College of Physicians of Edinburgh for exceptional distinction as a member of the lay committee of the College.
- **Dr Sarah Teichmann** of the Department of Physics has won the Biophysical Society’s Michael and Kate Bárány Award for Young Investigators for...
her fundamental insights into protein biophysics, protein complexes and gene regulation.

➔ Professor Andrew Wallace-Hadrill of the Faculty of Classics has been awarded an honorary doctorate from the University of Reading.

➔ Professor Tim Whitmarsh (Faculty of Classics) has been awarded the Charles A Goodwin Prize for Merit 2014 by the Society for Classical Studies for his book *Beyond the Second Sophistic: Adventures in Greek Postclassicism*.

➔ Mexico’s Sombrerete Community Centre won first prize in the Servicios y Asistencia Pública category of the 2014 CEMEX Awards. Part of an ongoing collaboration between the University’s Cities South of Cancer and Taller Activo (TEC Monterrey in Querétaro, Mexico), and led by architect Juan Alfonso Garduño, 13 Tripos students from the Department of Architecture participated in the construction of the community centre in 2013.

**Staff achievement recognised by UAS awards**

➔ Individual and team winners for this year’s UAS Employee Recognition Scheme have been announced. There were eight awards in total — one individual and one for teams against four UAS values. This year’s winners for ‘We deliver an effective and high-quality service’, were James Knapton, (Information Compliance Officer) and the Compliance team, HR Division. Recognised under the ‘We collaborate and work in partnership’ were Ralph Eccleston, (Research Strategy Manager) and the Web Recruitment team (cross-divisional project). Juergen Wastl, (Head of Research Information) and the Draftsman and Reporter Office were recognised for ‘We are open, responsive and innovative’. Rewarded for the value of ‘We respect others and value diversity’ were Julian Jacobs (Departmental Administrator) and the Finance Division Social Committee.

If you have an awards story, send your text (maximum 70 words) to the Editor by 15 March at newsletter@admin.cam.ac.uk. We reserve the right to edit contributions.

**New Year honours for Peacock and Barker**

PROFESSOR SHARON PEACOCK and Professor Graeme Barker are among those honoured in this year’s New Year Honours list.

Clinical microbiologist Professor Sharon Peacock was made CBE for her services to medical microbiology. Peacock is known for her work with the Wellcome Trust Major Overseas Programme in Thailand where for seven years she directed a wide-ranging programme of bacterial disease research. In the UK she has focused on the role of sequencing technologies in diagnostic microbiology and public health.

Peacock chairs the Cambridge Infectious Diseases Initiative and is Deputy Director of the Wellcome Trust Cambridge Centre for Global Health Research. She was elected to the Academy of Medical Sciences in 2013.

“I have the privilege of working with an outstanding group of scientists at the University of Cambridge and at the Sanger Institute, and this honour reflects their support and efforts. The award also reflects the importance of basic and applied microbiological research for individual and public health,” Peacock said.

Professor Graeme Barker was made CBE for services to archaeology. The former Disney Professor of Archaeology and Director of the McDonald Institute for Archaeological Research, Barker’s research focuses on prehistoric archaeology, the relationship between landscape and people, transitions from foraging to farming, and the origins of human behaviour and migrations.

Barker has worked all over the world, including in the rainforest of Borneo, and the deserts of the Middle East and North Africa. One of his major contributions has been work showing how humans have adapted to climate change in the past, and the lessons that can be learned from this today.

Reacting to the news, he said: "I changed to archaeology half way through my undergraduate degree at Cambridge, inspired by meeting Colin Renfrew, then a Research Fellow, and was privileged to succeed him as Disney Professor in 2004. It has also been a privilege to work in archaeology, which has so much to tell us about what it means to be human. It is a team subject par excellence and in accepting the award I have felt very much that it celebrates the achievements of so many colleagues, and good friends from all parts of the world whose support has been so important to anything I have achieved."

Tim Oates, Group Director of Assessment Research and Development at Cambridge Assessment, was also made CBE for services to education.

Trevor Llewellyn Richards, formerly Capital Project Liaison Officer at the School of Clinical Medicine, was made MBE for services to biomedical research and the welfare of animals in research. Described as an “outstanding biofacilities manager”, Richards was Director of Central Biomedical Resources from 1996 to 2012.

Renowned Cambridge letter cutter, Life Member of Clare Hall and Honorary Fellow Elect of Magdalene College, Lida Cardozo Kindersley, has been made MBE for heritage crafts and letter cutting. Many examples of her work adorn the University, colleges and other parts of the city.
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