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Front cover photo of the Lovell Telescope taken by Mike Anderson, Jodrell Bank Observatory

Letter from the President



Many readers of *UniLife* will know that I have decided to retire later this year from the role of President and Vice-Chancellor of The University of Manchester. I will have been in post for almost six and a half years by then, although for the first seven months prior to 1 October 2004 my role was that of President-elect, with the Vice-Chancellors of the two merging institutions continuing to exercise executive authority in their respective institutions.

Whilst looking forward to my retirement, I am also looking forward to a busy few months here in Manchester. Naturally, I will be anxious not to constrain my successor unnecessarily. He or she will doubtless wish to form their own views about the structures of the University and its strategic and operational priorities. But what I can try to do is to ensure that the University uses the period prior to and just after the forthcoming General Election, to prepare for the potentially drastic changes in higher education policy and funding likely to be introduced by whichever political party prevails at the polls. Without actually determining anything until a new Government makes its position clear on higher education, we need to understand in detail how different policy and funding outcomes would impact on an institution like ours. In short, we need to have informed, detailed contingency plans in place, knowing that most of them will never have to be implemented, but confident that Manchester will be able to move swiftly to manage any scenario that does materialise.

Two things have determined the timing of my departure. First, as many of my colleagues know, I have had niggling health problems over the past couple of years, culminating in heart bypass surgery last September. I am feeling well enough and energetic enough to be confident about the next few months, but it would have been irresponsible for me to give the same assurances to the University community and its Board of Governors about a further extended period in office.

Which leads to the second timing consideration. We have reached an important watershed in the development of the University, making 2010 a sensible time for a change of leadership, irrespective of personal factors.

The Manchester "merger" is effectively over, and has been an unambiguous success – a reality reflected in our outstanding performance in RAE 2008, in our impressive climb up respected international university rankings since 2004, and in the physical transformation of the Manchester campus through a massive capital investment of over £400 million. A new, powerful institutional culture has developed around our ambitious *Manchester 2015 Agenda*, bringing with it a genuine sense of institutional momentum around the pursuit of scholarly excellence in all its forms.

It has been a matter of immense good fortune that the Manchester merger took place in a relatively benign financial climate in UK higher education. We took prudent, but significant, financial risks to empower the new institution to take full advantage of the opportunities afforded by the merger. In particular, we ran up a considerable budget deficit over the first 30 months after October 2004 to allow for a major pre-RAE 2008 build-up of research capability. While robust financial measures were required to eliminate this deficit during 2007-08, the wider funding environment was one in which the University's income continued to grow substantially throughout the five years after the merger. The University of Manchester budget is now in surplus, a welcome outcome reflecting the fortuitous timing of the merger as well as robust financial management in 2007-08.

The external funding climate for all UK universities is now taking a dramatic turn for the worse. The kinds of bold strategies that represented prudent risk six years ago – and that in Manchester's case were vindicated by the results achieved – could not have been pursued responsibly during a period of public funding stringency of the kind that UK higher education now faces.

While I will be leaving The University of Manchester in a healthy financial position, even the very strongest institutions will find it extremely challenging to manage the sheer scale of the public funding cuts likely to be compounded year-on-year over the next five years or so. Health permitting, I would have looked forward to staying on for an extended period to help the University deal with these challenges, not least because "hard times" create major opportunities for strong, strategically-focussed institutions that do not exist to the same extent in easier circumstances.

As events have transpired, however, I have no doubt that what the University needs is a new, energetic leader who will be in a position to see Manchester through half a decade or more of financially straitened circumstances. Consistency, steadfastness of purpose and a clear sense of strategic direction will be the vital ingredients of strong leadership going forward, and that, ideally, will be built around stability in the office of a new President and Vice-Chancellor.

While an international search goes on for such a person, the University need not be concerned about any loss of momentum or direction at the top. Prudently, the Board of Governors some time ago appointed Professor Dame Nancy Rothwell as Deputy President and Deputy Vice-Chancellor and (whenever I am absent) Acting President and Vice-Chancellor. For however long it takes to make a substantive appointment, she will bring to the acting role not only national and international standing as a scholar, researcher and academician, but also direct, current experience in the senior management of The University of Manchester. In the meantime, I will work closely with Nancy to ensure the kind of seamless transition that the University needs in a volatile external environment.

Professor Alan Gilbert
President and Vice-Chancellor

The Countess and the 'frog prince'

HRH The Countess of Wessex visited the Faculty of Life Sciences last month to see the work of The Healing Foundation Centre, which aims to advance the understanding of wound healing and tissue regeneration.

The Countess is the Patron of The Healing Foundation and this was her first visit to one of their research centres to see the scientists at work. It was also her first ever visit to the University.

The Healing Foundation is a national UK charity that champions the cause of people living with disfigurement and visible loss of function by funding research into pioneering scientific, surgical and psychological healing techniques.

Manchester's Healing Foundation Centre represents a 25-year, £10 million commitment between The Healing Foundation and the University. Its ultimate goal is to identify treatments that will improve

the lives of patients with disfigurements, either congenital, or following accident and disease. As a first step towards this goal, the Centre is investigating the mechanisms of wound healing and tissue regeneration at the most basic cellular, molecular and genetic level using a variety of model systems including frogs, mice and fruit flies.

Centre Director Professor Enrique Amaya - famously dubbed 'The Frog Prince' by the *Times* newspaper when it featured his work in the inaugural edition of its new science magazine, *Eureka* - said: "The visit was a smashing success. The Countess was very engaged and enjoyed her visit."

The Countess was taken by Enrique on a tour of the Michael Smith Building, meeting scientists and students in the Centre studying embryonic wound healing and tissue regeneration in frogs. Frog embryos and tadpoles have remarkable capacities to heal wounds and regenerate complex tissues.



Professor Amaya said: "We are looking to expand the Centre further. We have the capacity to house 50 people and have half of that now. The work that we are doing is in its infancy, there's lots to be done, which makes it very exciting. We are

recruiting groups with common interests in tissue repair and regeneration, and have collaborations with clinicians, so we can see advances in both our basic science work and its applications."



Newly discovered star one of hottest in Galaxy

Astronomers at the Jodrell Bank Centre for Astrophysics have discovered one of the hottest stars in the Galaxy with a surface temperature of around 200,000 degrees, 35 times hotter than the Sun.

Despite numerous attempts by astronomers across the world, the mysterious dying star at the heart of the Bug nebula, one of the brightest and most beautiful of the planetary nebulae - has never been seen before.

"This star was so hard to find because it is hidden behind a cloud of dust and ice in the middle of the nebula", said Professor Albert Zijlstra.

"Planetary nebulae like the Bug, form when a dying star ejects much of its gas back into space and are among the most beautiful objects in the night sky.

"Our own Sun will do this in about five billion years time. The Bug nebula, which is about 3,500 light years away in the constellation Scorpius, is one of the most spectacular of all planetary nebulae."

Using the recently refurbished Hubble Space Telescope (HST), a team of astronomers led by Professor Zijlstra have shed new light on the nebula with a set of spectacular images (see above).

The images were taken to show off the new improved HST after it began work again in September.

Professor Zijlstra added: "It's extremely important to understand planetary nebulae such as the Bug Nebula, as they are crucial to understanding our own existence on Earth.

"The elements necessary for life, especially carbon, are created inside stars, and ejected into space as part of these planetary nebulae."



Your Legacy: Your Vision, Your Values, Your Manchester

Even in the current economic climate, The University of Manchester continues to benefit from the vision and generosity of alumni and staff. Year on year the University is remembered financially by those with a fondness for the University, some making a lifetime gift, others choosing to consider a gift to Manchester in their Will. Examples of Will gifts received include:

- Mr Kenneth Cavalot (Adult Education, 1971) – for the Manchester Research Centre Hearing and Communications Group which allows the Audiology and Deafness Department to further research to optimise the benefits that hearing impaired children gain from hearing aids and cochlear implants;
- Dr George Howard (Chemistry 1943; MSc Polymer Science and Technology 1944) – for The Howard Scholarship in Chemistry. Established by Mr Andrew Howard in memory of his father, the Scholarships are awarded to undergraduate Chemistry students who are finding it difficult to undertake or continue to study at the University without additional financial assistance;
- Dr Isabella Muir was a research Biochemist at the University. Her gift is used for research prizes in the Wellcome Trust Centre for Cell-Matrix Research and supports training visits.

Staff and alumni have often simply had personal reasons for supporting the University this way. They may have been commemorating their own or a loved one's time here or celebrating the University's influence on their life and career. Support such as this, whether small or large, can have a real and enduring effect.

If you would like a copy of the University's legacy brochure please download it at www.manchester.ac.uk/alumni/donorprogrammes/legacy or contact lesley.dowdall@manchester.ac.uk 0161 275 2373 for further information on the University's Legacy Programme.

www.manchester.ac.uk/alumni/donorprogrammes/legacy

Rock defeats Phelps in butterfly

A University of Manchester law student has produced the race of a lifetime to defeat the world's greatest ever swimmer - by a body length.

Michael Rock stormed to victory over Michael Phelps, the American fourteen-time Olympic gold medal holder, in the Duel In The Pool 200m Butterfly at the Manchester Aquatics Centre.

The competition between America and Europe in December at the Manchester Aquatics Centre saw the US team break eight world records.

Rock, 22 - trains with Stockport Metro and has been given a Sports Scholarship at Manchester.

Roared on by his home crowd to victory with a time of one minute 51.46 seconds, more than a second faster than Phelps. He had broken his own British record and is now Britain's fastest ever butterfly specialist.



"That was a fantastic experience," said Rock told the BBC just after finishing the race.

"It's just a pleasure to race the Americans and Michael Phelps in front of this amazing crowd, amazing atmosphere. They really got me through the race.

Alison Odell, Director of Sport at The University of Manchester, said, "Mike manages to compete at an international level and study a demanding course at The University of Manchester which takes a great deal of commitment, diligence and passion for what he believes in."

Amis and James debate literature and ageing

The University's Centre for New Writing hosted a controversial debate on literature and ageing last month between broadcaster Clive James and its own Professor of Creative Writing, Martin Amis.

Renowned novelist Amis told the audience that writers are past their prime once they reach old age.

Philip Roth, Vladimir Nabokov and John Updike, he said, were examples of how older writers lose their literary skills.

Not so, said respected novelist, poet and broadcaster James, who cited Tolstoy, Goethe and Yeats as writers who hit new heights in old age.

Amis told the audience at the University's Martin Harris Centre: "Old age is not for old people. It's like starring in a low budget horror film, saving the worst till last.

"Saul Bellow published in his mid-80s a charming but slight novel called Ravelstein - but nothing like the mighty longer novels.

"The great stylist John Updike's ear went and he was reduced to writing [poor] sentences. The idea of not spotting clunking repetition is a terrifying indictment of failing powers.

"And Philip Roth lost the ability to breath life into his characters.

"I hope and expect to have a good last period. But there are things that science can tell us - we all face a shrinking vocabulary. I reach for the thesaurus more often than I used to."



James disagreed: "I am 70 and I feel within myself a new strength - especially in poetry and there's a simple reason for it: my work depends on reflecting experience and at this age I've a lot of experience to reflect on.

A podcast of the full debate can be heard on the Centre for New Writing's online arts journal The Manchester Review at the web address below.

Awards to recognise community service

The University is launching two new annual awards to recognise and celebrate the significant time and energy given by staff and students from the University to help disadvantaged groups in the community – locally, nationally and internationally.

Both the Community Service & Volunteer of the Year Award and the University Social Responsibility Medal, support the University's commitment to encourage students and staff to engage positively with the wider community, as outlined in the *Advancing the Manchester 2015 Agenda*.

The Community Service & Volunteer of the Year Award will be given in two categories:

- Student of the Year - open to any current undergraduate or postgraduate of The University of Manchester
- Staff Member of the Year - to any current staff member of the University

To be eligible for these awards, the volunteering activity must address

disadvantaged groups or deprived communities and, in the case of staff, must not be for work that might be expected to be completed as part of a person's job. The winning entries are likely to be ones that demonstrate at least one of the following:

- Exceptional leadership skills.
- Actions that have created real impact and change.
- The use of innovation to meet a need.

Each winner will receive a prize for the organisation where they volunteer: £300 for the overall winner, and £200 and £100 for the 2nd and 3rd place runners-up.

In addition the overall winners will be put forward as recipients for a new category in the annual suite of University medals - The University Social Responsibility Medal.

Welcoming the announcement, Deputy President and Deputy Vice-Chancellor, Professor Dame Nancy Rothwell, who will have oversight of the new awards, said: "It is fantastic that we will now formally recognise



the very best of our many staff and students who undertake community service and volunteering work. Their activities are now encompassed as a key strategic goal for the University, so it is important that we celebrate this important activity".

The closing date for nominations for the Community Service and

Volunteer of the Year Awards is 19 March 2010. Any staff or student can make a nomination, including nominating themselves.

For further information about the Community Service and Volunteer of the Year Awards and to make a nomination go to the website below.

www.manchester.ac.uk/volunteeroftheyear



New chapter for library

The Main Library has re-opened its Burlington Street entrance to welcome all customers into the redesigned ground floor and reception area.

Users of the library can now benefit from increased public space, improved disabled facilities, a single welcome desk, quick access PCs and new learning and social spaces as a result of this £1.8m project.

University Librarian and Director of John Rylands Library, Jan Wilkinson, said: "The need for the refurbishment was overwhelming following feedback from students that the Library's environment fails to meet their expectations. The Library's strategic realignment with the University's 2015 agenda has resulted in a renewed commitment to the provision of innovative, flexible and accessible library space."

The entrance and reception area of the Main Library is in the 1981 wing. Increased opening hours over the last five years have led to heavy use (the Main

Library receives annually over 1.3 million visits from University staff, researchers and students, and 95,000 visitors). "The original design no longer lived up to expectations, and the need for redevelopment had become urgent," says Jan.

By increasing the entry of natural light through the removal of the perimeter offices, the public space has markedly improved. This has helped the circulation of people, but also greatly enhanced access and facilities for disabled users.

Katy Woolfenden, Head of Customer Services. "The design is based on modern flowing lines with splashes of colour introducing freshness and vibrancy without taking away from the new sense of light and openness. Above all, the space has been given back to Library customers."

The Library now offers a new, single welcome desk which brings together reception, help and security

functions. Visitors are able to orientate themselves more easily on arrival and better understand the services and resources within the Library. The borrowing and returning of books can be done more quickly through self-service, there is a cluster of quick access PCs and there are a number of different learning and social spaces.

Funding came from a generous grant by Trustees of the Wolfson Foundation, with matching funding from the Higher Education Funding Council for England (HEFCE) and the University.

The Library will soon be introducing the Quickvote feedback system to enable the collection of views. The annual Library Customer and University Student Satisfaction surveys as well as external surveys will also help the Library to further gauge perceptions.

In brief

Innovative engineers shine at European awards

Two chemical engineers have been recognised for their entrepreneurial spirit.

Dr Nigel Brown and Dr Ted Roberts are founders of spin-out company Arvia Technology Ltd, which has developed a water treatment process that offers continuous removal and destruction of toxic and non-biodegradable pollutants.

They scooped the Fast Start Award for companies formed in the past year at the second annual Academic Enterprise Awards Europe also known as the ACES.

Judges praised Arvia's approach, saying it holds "enormous potential to deal with a serious global problem".

Royal Society Fellowship

The Royal Society has announced that a computer scientist has been awarded one of 38 new University Research Fellowships for 2009.

Dr Mikel Lujan, who works in the Advanced Processor Technologies Group in the School of Computer Science, is part of a scheme that aims to provide outstanding scientists, who have the potential to become leaders in their chosen fields, with the opportunity to build an independent research career.

Biomed data boost

A new partnership of biomedical researchers, the John Rylands University Library, IT Services and the Manchester eResearch Centre (MeRC) has won funding from the Joint Information Systems Committee (JISC).

The project which has been named MaDAM (Manchester Data Management) is running from October 2009 to March 2011, and will develop a pilot infrastructure to support research data management in selected areas within biomedicine. The project will be led by the University Library, and involve close collaboration with colleagues in the Faculties of Life Sciences and Medical and Human Sciences.

GDP is misleading measure of wealth, says top economist



The most commonly used measure of overall economic output is misleading and inaccurate, according to one of the world's leading economists.

Professor Sir Partha Dasgupta (pictured), from the Sustainable Consumption Institute at The University of Manchester, says Gross Domestic Product (GDP) ignores the value of natural ecosystems - an essential component of wealth.

Aquifers, ocean fisheries, tropical forests, estuaries and the atmosphere, should but are not used to estimate nations' wealth, he wrote in a new paper published this month.

Professor Dasgupta also criticises the Human Development Index (HDI) - used by the United Nations to say if a country is developed, developing, or underdeveloped for - the same reason.

To support his argument, Professor Dasgupta produced a series of figures from 1970-2000, showing that sustainable economic development for most of the third world - other than China - was negative - despite official figures showing GDP and/or HDI as rising.

Though the crude data leaves out the deterioration of ecosystems and improving health - among others - by using population, the calculations provide a strong indication of the mismatch between official GDP figures and real wealth.

"Adam Smith did not write about the GDP of nations, nor the HDI of nations; he wrote about the 'Wealth of nations'," said Professor Dasgupta.

"As Smith would surely have agreed, the international community needs to routinely estimate the comprehensive wealth of nations which includes natural capital. This is not happening.

"As long as we rely on GDP and HDI, we will continue to paint a misleading picture of economic performance," he said.

£8 million to extend civil nuclear research

The Government and the Northwest Regional Development Agency (NWDA) is investing £8 million to expand existing civil nuclear research facilities within The University of Manchester.

The funding has been announced by Lord Mandelson, Secretary of State for Business, Innovation and Skills, as part of the Government's commitment to new low carbon sustainable growth.

The £8 million investment is to support the University's role in the establishment of the Nuclear Advanced Manufacturing Research Centre (NAMRC).

Working in partnership with The University of Manchester's Dalton Nuclear Institute, the NAMRC will be led by the University of Sheffield together with industrial partners Rolls-Royce.

The NAMRC will comprise a new £25 million building, funded by central government and Yorkshire Forward, located at the Manufacturing Technology Park on the Sheffield / Rotherham border.

The University's main role will be to lead on the research agenda, drawing on its internationally recognised nuclear research capability.

The fundamental aim of the NAMRC is to innovate, demonstrate and disseminate advanced manufacturing technologies to enable the UK supply chain to seize the opportunities that new nuclear build affords.

Alongside the announcement of the NAMRC, and investment in Manchester's research facilities, is the establishment of the Nuclear Low Carbon Economic Area

(LCEA) in the North West and Yorkshire, led by NWDA in collaboration with Yorkshire Forward.

As part of the Nuclear LCEA the North West will support the Manufacturing Advisory Service's (MAS) nuclear services as part of the Nuclear LCEA, offering manufacturing companies advice and support to access the nuclear energy market.

President and Vice Chancellor of The University of Manchester, Professor Alan Gilbert said: "The University of Manchester fully supports the drive towards a low carbon future and is committed to mobilising its leading nuclear research capability through the Dalton Nuclear Institute to make a substantial contribution to the LCEA agenda through the Nuclear Advanced Manufacturing Research Centre."

Some childrens' toothpastes may be ineffective

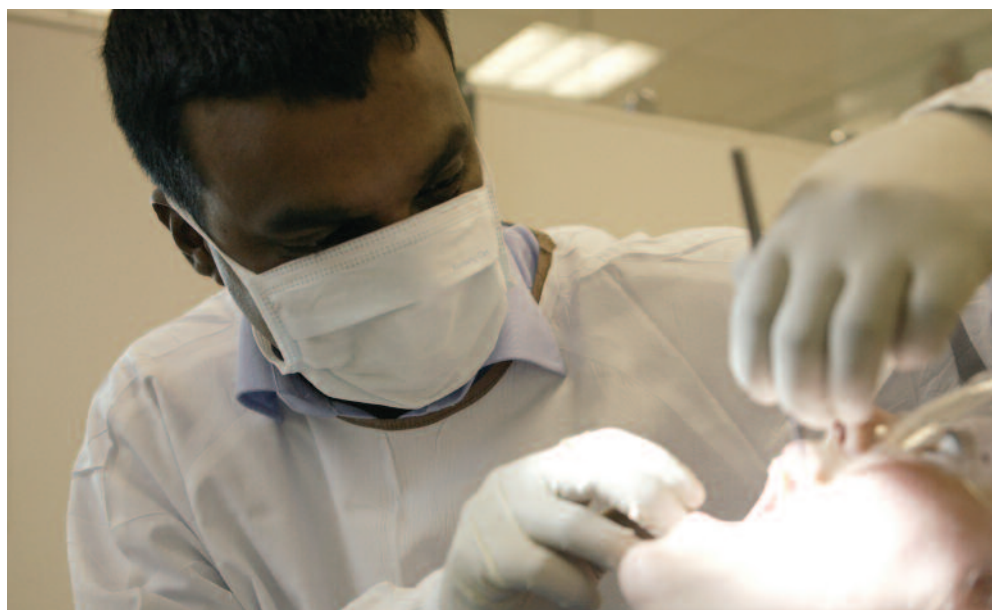
Parents should use toothpastes that contain fluoride with a minimum concentration of 1,000 parts per million to prevent tooth decay in their children, says a new report. Preventing tooth decay can help reduce the need for extensive and costly dental treatments, including extractions.

But the authors, in a second related study, suggest that parents concerned about the risk of fluorosis – the discolouration or mottling of the teeth caused by excessive fluoride ingestion – should consult their dentist to discuss the benefits and risks.

Researchers for the Cochrane Oral Health Group, based at the School of Dentistry, have previously shown that fluoride toothpastes reduce dental decay by 24% on average compared to non-fluoride products.

The group's latest research, found that those toothpastes with fluoride concentrations less than 1,000 parts per million were only as effective as non-fluoride toothpastes at preventing tooth decay. Children's toothpastes range from 100ppm to 1,400ppm fluoride concentration.

The report suggests that brushing a child's teeth with a toothpaste containing fluoride before the age of 12 months may be associated with an increased risk of developing mild fluorosis. Swallowing large amounts of toothpaste may still cause fluorosis in children up to the age of six years when the permanent teeth are still developing, but using a small amount, carefully, will reduce these risks. After the age of six years,



the teeth are fully developed and toothpaste can be used without fear of fluorosis.

Dr Anne-Marie Glenny, an author on the review, said: "It is very confusing for parents to know how to strike the right balance, which isn't helped by the fact that different companies use different concentrations of fluoride in their toothpastes aimed at children.

"From a public health point of view, the risk of tooth decay and its consequences such as pain and extractions is greater than the small risk of fluorosis. Children would have to swallow a lot of toothpaste over a long period of time to get the severe brown mottling on the teeth, as opposed to the more typical mild white patches.

"If in any doubt, we would advise parents to speak to their family dentist."

Survival of the cutest

Domestic dogs have followed their own evolutionary path, twisting Darwin's 'survival of the fittest' to their own needs - and have proved him right in the process, according to a new study.

The study, published in *The American Naturalist*, compared the skull shapes of domestic dogs with those of different species across the order Carnivora, to which dogs belong along with cats, bears, weasels, civets and even seals and walrus.

A study by biologists Chris Klingenberg from Manchester and Abby Drake from the College of the Holy Cross in the US found that the skull shapes of domestic dogs varied as much as those of the whole order. It also showed that the extremes of diversity were farther apart in domestic dogs than in the rest of the order. This means, for instance, that a Collie has a skull shape that is more different from that of a Pekingese than the skull shape of the cat is from that of a walrus.

The incredible amount of diversity in domestic dogs has originated through selective breeding in just the last few hundred years, and particularly after the modern purebred dog breeds were established in the last 150 years.

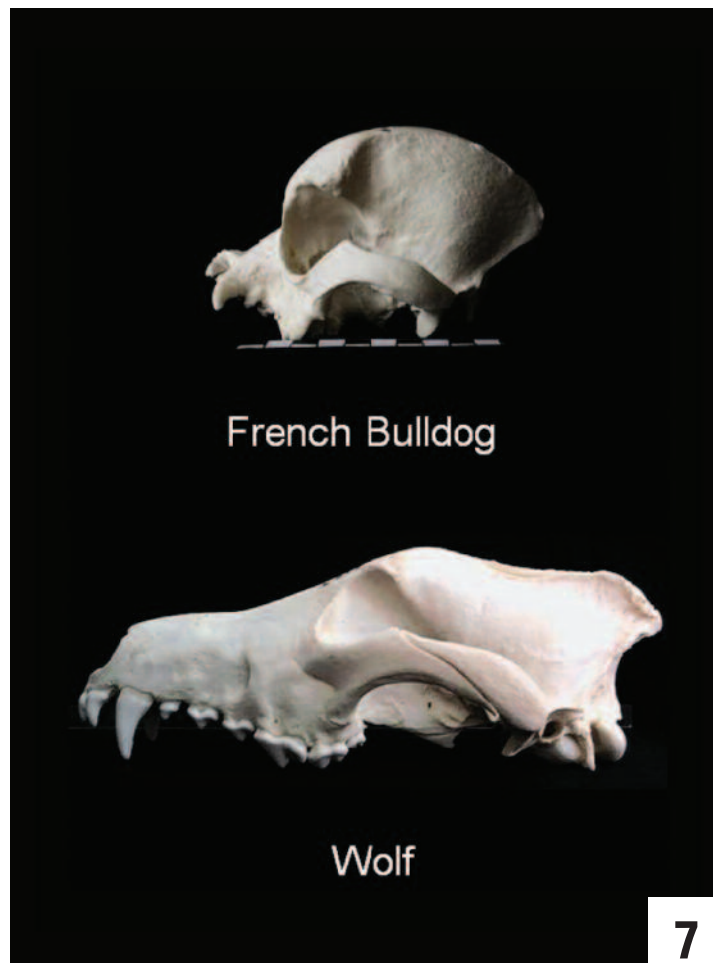
By contrast, the order Carnivora dates back at least 60 million years. The massive diversity in the shapes of the dogs' skulls emphatically proves that selection has a powerful role to play in evolution and the level of diversity that separates species and even families can be generated within a single species, in this case in dogs.

Much of the diversity of domestic dog skulls is outside the range of variation in the Carnivora, and thus represents skull shapes that are entirely novel.

Dr Klingenberg, of Manchester's Faculty of Life Sciences, says: "Domestic dogs are boldly going where no self respecting carnivore ever has gone before.

"Domestic dogs don't live in the wild so they don't have to run after things and kill them - their food comes out of a tin and the toughest thing they'll ever have to chew is their owner's slippers. So they can get away with a lot of variation that would affect functions such as breathing and chewing and would therefore lead to their extinction.

"Natural selection has been relaxed and replaced with artificial selection for various shapes that breeders favour."



'Particle soup' discovery will improve climate predictions

New research from scientists is set to improve predictions about climate and air quality and make life easier for those suffering from respiratory problems.

Researchers from the Centre for Atmospheric Science in the School of Earth, Atmospheric and Environmental Science (SEAES) worked with an international team of 60 scientists to study the behaviour of organic particulate once it has been released into the atmosphere.

Their findings appeared in the world-leading journal *Science*.

Scientists have previously struggled to work out where the organic particulate comes from, why there is so much in the air and what happens to it.

A lack of information about their behaviour has led to incomplete or inaccurate prediction models for climate and air quality.

This is important for people suffering from respiratory illnesses like asthma, as better modelling and predictions could help them avoid atmospheric conditions which will adversely affect their health.

Now Manchester researchers and international colleagues have taken a more holistic approach to tracking the life cycles of airborne compounds and this promises to improve future predictions.

Organic compounds coat airborne particles and make up as much as 90 per cent of all fine particle mass floating around in the atmosphere.

These particles influence cloud formation and therefore rainfall, as well as contributing to human disease and illness.

Through field observations and lab experiments, scientists have now found that organic matter tends to end up as a type of 'goo' with very similar physical and chemical properties, regardless of the source or where it is found in the atmosphere.

The research paper's co-author Professor Hugh Coe said: "The organic content of airborne particles is highly complex, but the approach we have taken in our research greatly simplifies our understanding."

Several scientists in Manchester who worked on this study are also part of the National Centre for Atmospheric Sciences (NCAS).

Funded by the Natural Environment Research Council (NERC), NCAS focuses on research in climate change science, atmospheric composition, weather and atmospheric technology.

Text of Jewish exorcism discovered

A rare – and possibly unique – text describing a Jewish exorcism has been discovered by a scholar of medieval Jewish studies.

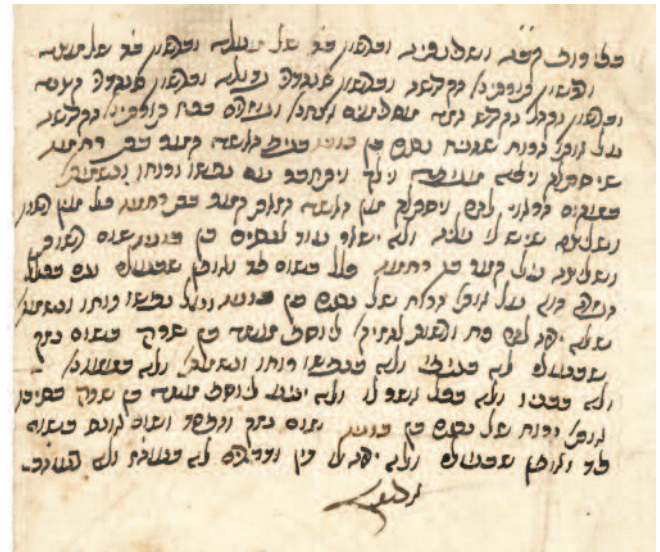
The 150-word neatly written fragment – discovered by Dr Renate Smithuis from The University of Manchester – describes a ceremony to dispel the evil spirit – or dybbuk – of Nissim Ben Bunya from his widow, Qamar Bat Rahma.

Dr Smithuis thinks the Hebrew document was most likely written in the 18th century and probably originated from Egypt or Palestine.

The fragment provides what is likely to be unique evidence of the prayer ritual's actual use in a synagogue.

It is one of the 11,000 manuscript fragments held at The University of Manchester's John Rylands Library – rescued from a 1000-year old storeroom – or Genizah – at the Ben Ezra synagogue in Cairo.

The fragment contains the second part of a prayer ritual in which the husband – or husband-to-be – of a widow



recites an exorcism prayer, to which the other men gathered in the synagogue respond with a similar prayer.

Dr Smithuis, who is based at the Centre for Jewish Studies at The University of Manchester, said: "From the second half of the sixteenth century onwards, there were lots of dybbuk stories across the Mediterranean, primarily in North Africa and Palestine.

"But this fragment is so exciting because it's not a story, but the record of a real event using a prayer which was actually recited in a synagogue. We know little more about what happened than what is contained within these 150 or so words – but it does throw some light on this mysterious and little known side of Jewish culture."

Sticks and bones: tree study to help orthopaedic surgeons

A study on why tree branches buckle or split, rather than break cleanly, could help orthopaedic surgeons do a better repair job on children's broken bones.

Children are prone to what doctors term "greenstick fractures" – their bones do not break cleanly; they break halfway across then split longitudinally. Tree branches do the same.

Dr Roland Ennos and his team at The University of Manchester are analyzing tree branches to find out why they do this.

"The cell structure in wood is like lots of drinking straws packed together along the branch," Dr Ennos explains.

"So branches are stiffer along their length than side-to-side. When you try to snap them, you apply longitudinal and transverse pressure. This stretches one side of the branch and compresses the other.



"The transverse pressure easily crushes the straw-like cells in the lighter woods, causing them to buckle. Denser wood has thicker-walled cells so the application of force causes the branch to break halfway across then split along its length, as the low transverse tensile strength diverts the crack longitudinally.

Dr Ennos, based at the University's Faculty of Life Sciences, says: "It appears that the crystals in bone are oriented

in the same way, longitudinally along the bone, like the cells in wood are. Adult bones are heavily remodeled by being dissolved and laid down again, so the crystals in their bones lie in different directions. Bones are remodeled to stop cracks from developing – the crystals dissolve and are re-laid in those places. Children's bones have not had time to do that.

"This is something we could study further with an orthopaedic surgeon."

Social scientists and physicists probe immigration and diversity

Social scientists have joined forces with physicists on a new multi-million pound research project to help address some of UK society's big issues.

Led by Professor Ed Fieldhouse from the School of Social Sciences, working with theoretical physicist Professor Alan McKane from the School of Physics and Astronomy, it will look at the social complexity of immigration and diversity.

Manchester is one of just four universities to receive a total of £11 million to use complexity science to address societal issues.

Each team of researchers will use the tools and techniques of complexity science to address some of the fundamental problems facing society today such as health care, banking systems, natural disasters including flooding, sustainable communities and immigration.

Complexity science is a broad term for understanding a range of complex phenomena. Unlike a piece of machinery where you can analyse the different parts and therefore understand how it works, complexity science considers the behaviour of a complex system where the interactions between the components or parts can vary from one situation to another.

Researchers will develop complex computer simulation models to inform policy makers in the area of immigration and social diversity, which will achieve new insights into the social consequences of immigration and diversity.

They will engage with local and national government policy advisors to improve the social cohesion and resilience of the wider population.

The project is funded by the Engineering and Physical Sciences Research Council (EPSRC).

How trees help the battle against climate change

Pupils from Manchester Academy are helping University scientists in a two-year groundbreaking scientific study to accurately measure the important impact of trees in the fight against climate change.

The Faculty of Life Sciences team has calculated that a mere 10 per cent increase in the amount of green space in built-up centres would reduce urban surface temperatures by as much as 4°C. This 4°C drop in temperature, which is equivalent to the average predicted rise through global warming by the 2080s, is caused by the cooling effect of water as it evaporates into the air from leaves and vegetation through a process called transpiration.

The study will use nine i-trees plots along Oxford Road, each consisting of three 3m x 3m grids of tarmac, grass and a tree which are linked to monitoring equipment that gathers information on surface and air temperature, air quality and surface water run off.

Pupils will be responsible for downloading the data from their plot for each of the different surface types. They will also measure the level of pollution that is absorbed by the trees leaves (and therefore taken out of the air).

Dr Roland Ennos said: "It is generally accepted that trees and greenery help to reduce surface



Pictured: Dr Ronald Ennos, research student David Armson and pupils from Manchester Academy

and air temperatures. No one has accurately measured the size of this effect over a sustained period and against other types of surfaces. Our hope is that the results of i-trees will inform future tree planting in the city so we can start now to counter balance the increase in temperatures expected in the

cities over the next 20 years caused by climate change.

"Involving the pupils from Manchester Academy in the project is really important, as they will be finding out first hand about climate change and its effects, and making a real contribution to the study and the future of Manchester."

Psoriasis puts drugs to the test

Clinical trials to test the effectiveness of two prescription drugs for the debilitating skin condition psoriasis have revealed significant differences that should help inform physicians treating patients with the condition.

Researchers at The University of Manchester compared the drugs etanercept and ustekinumab – relatively new biological therapies that have proved effective in the management of moderate to severe psoriasis.

Little research has been done to test the benefit-risk profiles of these new biological agents or compare their relative effectiveness. The Manchester-led international study tested the two drugs on 903 patients with moderate to severe psoriasis over a 12-week period.

The team, headed by world-renowned dermatologist Professor Chris Griffiths, found that there was at least a 75% improvement in the severity of psoriasis symptoms in 56.8% of patients who received twice-weekly 50mg sub-cutaneous injections of etanercept after 12 weeks.

Ustekinumab was given to patients in two doses – 45mg and 90mg – and involved just two sub-cutaneous injections over the 12-week period. A 75% improvement in symptoms was observed in 67.5% of patients taking the 45mg dose and 73.8% receiving the 90mg dose.

Similarly, a higher proportion of patients using ustekinumab were reported to have no or minimal disease symptoms after 12 weeks than those given etanercept – 70.6% at 90mg ustekinumab compared to 49.0% receiving etanercept.

About one in 50 people are afflicted by psoriasis. The condition is currently incurable and causes significant impairment in the sufferer's quality of life. In severe cases more than 20% of the skin's surface area can be affected. Therapeutic agents used for the management of the condition commonly target the underlying inflammation.

Immunosuppressive agents, such as methotrexate and cyclosporin, have proved effective in treating psoriasis but new biological agents that block selective stages of the body's inflammatory process now provide alternative therapies. Etanercept and ustekinumab are two such agents.

The research, published in the *New England Journal of Medicine* on January 14, also charted the number and type of adverse reactions for both drugs.



Biology students to compare their DNA with chimpanzees'

In November 1859 Charles Darwin laid the foundations of modern evolutionary biology by publishing his landmark work 'On the Origin of Species'. 150 years later, post-16 biology students are conducting their own experiments to investigate human evolution by extracting their own DNA and seeing how it compares with that of chimpanzees.

Nowgen, a centre for genetics in healthcare, is giving school students an opportunity to take part in specialist laboratory workshops with the help of experts from The University of Manchester and the Central Manchester University Hospitals NHS Foundation Trust. Nowgen is part of the Manchester Biomedical Research Centre – a partnership between the University and the Trust.

Supported by the Wellcome Trust, the fascinating workshops are part of the 'Survival Rivals' project, celebrating Charles Darwin's 200th birthday and 150 years since the publication of 'On the Origin of Species'.

The one-day workshops explore the variation in our ability to taste a particular bitter flavour, and whether this gives us any evolutionary advantage.

Students work with their own DNA, using cutting-edge techniques to find out how their own genes impact upon their ability to taste the bitter flavour. Using DNA sequence information from the internet, they then go on to ask the same questions for chimpanzees.

Dr Leah Holmes is the project manager responsible for organising and running the workshops at Nowgen. "These latest practical workshops allow students to get hands-on experience, applying what they learn in school and exploring some of the social and ethical issues associated with genetics."

Inspiring female engineer scoops top award

A Manchester student has scooped a major national award for her work to promote science and engineering to young women.

Rebecca Robinson, 26, a third year PhD student in the School of Electrical and Electronic Engineering (EEE), fought off stiff competition to win the WISE (Women into Science, Engineering and Construction) Excellence Award for her enthusiasm and commitment to encouraging girls into science and engineering.

The award was presented by Her Royal Highness the Princess Royal at the Royal Academy of Engineering in London.

Rebecca, who is in her final year of a PhD in Electrophysiology, has been a key ambassador for the University.

She has been heavily involved in inspiring hands on activities such as Girls in Aerospace, Physics Tricks, Maths Squad and Ice Cream Fun.

The aim of these events is to raise awareness of, and aspiration to, higher education amongst individuals from underrepresented groups, the



University aims to encourage applications from the most gifted and talented individuals regardless of geography, school, socio-economic status or ethnic grouping.

Rebecca has also been a student co-ordinator for WiSET (Women in Engineering, Science and Technology) at the University since 2006.

The WiSET initiative is aimed at supporting all women, from undergraduates to professors, and encourages female

graduates to develop careers in science, technological, engineering and maths.

Rebecca said: "There are still only seven per cent of professional engineers that are women. This doesn't have to be a male dominated world, girls can do it too."

"I have always been interested in engineering ever since I was a little girl. I was always taking things apart then trying to put them back together."

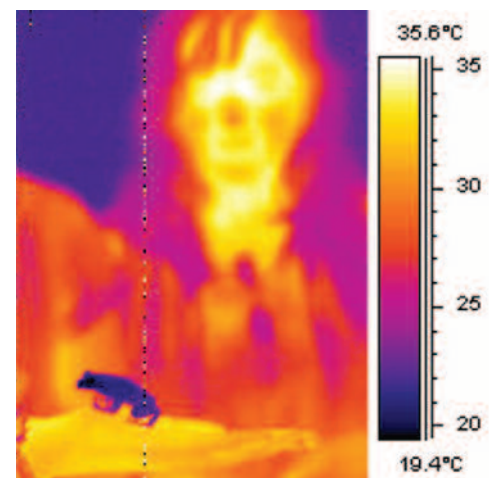
Frogs and Physics

Students from local schools are being invited to take part in highly interactive practical sessions alongside scientists from a variety of different disciplines thanks to the Manchester Museum.

The latest offering as part of the Museum's Engage with Experts A-level study days has been developed by Louise Sutherland and Andrew Gray from The Museum in collaboration with Dr Mark Dickinson of the Photon Science Institute and provides sixth form students with a first-hand experience of how Physics can help us investigate Biology.

More specifically, it is deepening students understanding of how and why researchers at Manchester are applying innovative imaging techniques to investigate the properties of amphibian skin.

Recently, students from Whalley Range High School for Girls, The Verdin High School, Macclesfield, and Ashton Sixth Form College visited The Museum and the laboratories in the Photon Science Institute where they got to grips with a wide range of equipment which allowed them to investigate for themselves the frogs' thermoregulation and infra-red reflecting pigments.



Pete Brown, Head of Learning and Interpretation at The Manchester Museum said "This is another great example of collaboration between research and teaching, using the Museum's public engagement expertise to inspire young people to become the next generation of scientists."



Teaching Excellence Awards 2009/10

The University has recognised the achievements of six members through its Teaching Excellence Awards Scheme 2009/10.

Jerome de Groot, School of Arts, Histories and Cultures; Ruth Grady, Faculty of Life Sciences; Rosie Illingworth, Manchester Medical School; Guyda Armstrong, School of Languages, Linguistics and Cultures; Peter Green, School of Electrical and Electronic Engineering; and Ray Richmond, School of Dentistry.

The Teaching Excellence Awards recognise colleagues who have demonstrated a significant and sustained commitment to excellence in teaching, excellence in supporting teaching, or shown significant and successful innovation.

A maximum of six awards of £5000 are made annually to help develop the candidates teaching or career, with submissions judged by the Teaching and Learning Group as chaired by the Vice-President (Teaching and Learning).

All the successful candidates demonstrated both excellence in their core role, and achievements in the wider University and sector. They have made contributions in a wide range of areas including collaborative and inter-professional learning, curriculum development, student engagement, research-informed teaching, and the use of new media in teaching.

The awards will be made formally at the University Teaching and Learning Conference in June.



Jerome de Groot



Ruth Grady



Rosie Illingworth



Guyda Armstrong



Peter Green



Ray Richmond



Free laptops for students

Six students at The University of Manchester have been awarded a free laptop computer as part of a new initiative.

'The Halls Laptop Bursary', introduced this academic year, offers students from less advantaged backgrounds the chance to gain a laptop free of charge to aid their studies during their time at University and beyond.

Every student moving into University of Manchester accommodation can be considered for the Bursary by selecting an option box during the application process. A bursary trustee group then assesses the applications and decides who the recipients will be.

The University's Sport, Trading and Residential Services (STARS) conducted a survey in 2007-08, which highlighted that a number of students are unable to study in their halls of residence because they cannot afford to buy a PC. Further research was undertaken to identify what impact this had on student learning and modern social interaction and the Halls Laptop Bursary initiative was born out of the feedback received.

The 'Your Manchester Fund' supported by alumni of the University is financing the project for the first five years and it is hoped that after this period the scheme will become self-financing.

What's On

Music and Drama at Manchester

Thursday 4 February, 1.10pm

Eliza McCarthy Solo Piano Lunchtime Concert

George Crumb – Makrokosmos Vol. I for amplified piano (1972)

John Adams - Phrygian Gates (1977). A performance of works by two American pioneers.

Friday 5 February, 1.10pm, 3pm and 6pm
Piano Festival

Be it classical or jazz, solo or four-handed, the Piano Festival will see a plethora of piano performances taking place throughout the day.

Saturday 6 February, 7.30pm

The University of Manchester Chamber Ensembles

The first evening concert of the new year highlights the delicate charm and subtly of a number of works written in the 50 years leading up to the Second World War.

Thursday 18 February, 1.10pm

Quatuor Danel Lunchtime Concert

The two surviving movements of the last of Haydn's quartets, coupled with the Quartet by the French master, Bruno Mantovani.

Thursday 18 February, 2.30pm

Quatuor Danel Seminar

Masters of Composition

Friday 19 February, 7.30pm

Quatuor Danel Evening Concert

Another delightful stroll in the company of early Schubert Quartet, followed by Bruno Mantovani's Piano Quintet, Blue Girl with Red Wagon, performed with Richard Whalley on piano.

Friday 19 February, 1.10pm

The Lion King - MUMS FREE Lunchtime Concert

Be transported from the rainy suburbia of Manchester to the Savannah of Africa as MUMS tells the story of Simba and Pride Rock.

Saturday 20 February, 7.30pm and Sunday 21 February, 2pm

MANTIS Festival Spring 2010

A weekend of electroacoustic music concerts featuring new works by MANTIS composers, live and interactive performances and audio-visual work.

Thursday 25 February, 1.10pm

The LUCHIP Ensemble

Leeds University's experimental period instrument group applies the latest research in historical performance in a concert of Mozart and Eberl piano quartets.

Friday 26 February, 5.30pm

Trio Atem - Made in Manchester

Trio Atem Made in Manchester perform new and recent commissions, including premieres by Ian Vine, Camden Reeves, Richard Whalley and Chris Swithinbank.

Friday 26 February, 1.10pm

Opera Scenes

An eclectic mix of arias, duets, recitatives and chorus numbers are semi-staged from a collection of operas from over the past 300 years for a dramatic lunchtime concert.

Saturday 27 February, 7.30pm

The University of Manchester Symphony Orchestra

Three masters of the 19th century dominate the Symphony Orchestra's second concert of year.

The Martin Harris Centre for Music and Drama

Bridgeford Street, Manchester M13 9PL

0161 275 8951/8950

email boxoffice@manchester.ac.uk

www.manchester.ac.uk/martinharriscentre

Jodrell Bank

15 – 19 February, 2pm

Ask an Engineer/Astronomer

Ask a Jodrell Bank Astronomer or Engineer all those burning questions you have about the telescopes or Jodrell Bank. No extra charge

Saturday 20 March, 6.30-9.30pm

Stargazing

An evening to help you get started with stargazing and astronomy. Members of the local Astronomical Societies will be here with their optical telescopes to give you a chance to see the night sky in all its glory, weather permitting. Find the constellation activities with assistance from our lively staff. Talks, 3D theatre presentation, soup, roll and a hot drink are included in the ticket price. Tickets are limited: Adults £12.50, Children £10.50

Tuesday 30 March, 10.45am, Sessions 11.45am, 12.45pm and 1.45pm

Astro Kids Day (aged 7-10 years)

Space Activity is a 45 minute session to include a tour of the Solar System in our Inflatable Planetarium followed by a Journey to Mars in the 3D theatre. Tickets, priced £4.25, must be booked in advance and include admission, 3D theatre experience and activities. Normal rates apply to accompanying adults but they cannot take part in the activities, but will be able to stay in the same room.

Jodrell Bank Observatory Visitor Centre

Macclesfield, Cheshire

01477 571339

www.manchester.ac.uk/jodrellbank/viscen

Chaplaincies

St Peter's House Chaplaincy

11am Holy Communion
12.15pm Bible Study
12.45pm Lunch (1st Sun)
6.30pm Evening Worship (term-time only)
FOYER 10am – 5pm

An area where students and staff can relax and meet friends. A tea/coffee machine is available.

RC Chaplaincy Avila House

Mass Times (term-time only)
Sun, 7pm (in the Holy Name Church) next door to the Chaplaincy
Mon, Wed, Fri, 6pm in the Chaplaincy Chapel
Tues, Thurs, 12.15pm in the Chaplaincy Chapel

The Jewish Student Centre and Synagogue

Hillel House, Greenheys Lane

0161 226 1139

Email rabbiiyy@hotmail.com

www.rabbiiyy.com

Muslim Chaplaincy

South Campus Mosque, McDougall Centre
Jummaat (Group Prayer) Daily
Juma Prayer Friday 1.15pm
Honorary Imam: Imam Habeeb, h_chatti@hotmail.com

North Campus Mosque, Basement of Joule Library,
Sackville Street Building
Jummaat (Group Prayer) Daily
Juma Prayer Friday 12.30pm

The role of the Volunteer Muslim Chaplain is to provide pastoral support, guidance and a listening ear to Muslim staff and students

Chaplains' email: a.sami99@yahoo.co.uk,
mbm1411@hotmail.com, assia_shah61@yahoo.co.uk,
hawwah@hotmail.com

Gig Guide

MANCHESTER ACADEMY 1, 2 and 3

Thurs 4 Feb – SOLD OUT

Kerrang! Relentless Tour 2010

Sat 6 Feb – £15.58 SOLD OUT

Shockwaves NME Awards Tour 2010

Sun 7 Feb – £17.50 Adv

Imogen Heap

Thurs 11 Feb – £14.30 Adv

Tinchy Stryder

Fri 12 Feb – £16.50 Adv

Lamb of God

Sat 13 Feb – £35 Adv

Musiq Soulchild

Weds 17 Feb – £11 Adv

Chimpunk

Fri 19 Feb – £17.88 Adv

Hot Chip

Sat 20 Feb – £16 Adv

Mastodon

Mon 22 Feb – £10 Adv

Owl City + Lights

Tues 2 March – £14.30 Adv

Noisettes

Wed 3 March – £14.30 Adv

Angie Stone + Dwele

Thurs 4 March – SOLD OUT

Mumford and Sons

Fri 5 March – Adv £11.75

Passion Pit + Ellie Goulding

Sat 6 March – Adv £20

Fun Lovin' Criminals

Tickets from:

Students' Union, Oxford Road
Piccadilly Box Office @ easy Internet Café (c/c)
0871 2200260

Royal Court (Liverpool) 0151 709 4321 (c/c)

Students' Union

Oxford Road, Manchester, M13 9PL

0161 275 2930

www.manchesteracademy.net

Centre for New Writing

Monday 8 February

Martin Amis Public Events: The Pregnant Widow Launch Event

Martin Amis will read from, and discuss his latest novel, The Pregnant Widow, to be published in February 2010.

Monday 22 February

DBC Pierre

DBC Pierre's debut novel, *Vernon God Little*, was the winner of the 2003 Man Booker Prize. His new novel, *Lights Out in Wonderland*, is out in January 2010.

Website: www.manchester.ac.uk/arts/newwriting

Online journal: www.themanchesterreview.co.uk

The Martin Harris Centre for Music and Drama

Bridgeford Street, Manchester M13 9PL

0161 275 8951/8950

email boxoffice@manchester.ac.uk

www.manchester.ac.uk/martinharriscentre





The Manchester Museum

As well as our permanent galleries, the Museum has a varied programme of temporary exhibitions.

The Evolutionist

Who was Charles Darwin and what's all the fuss about his theory of evolution? All will be revealed during our Darwin Extravaganza. Part of Darwin 200, a national programme of events honouring his scientific ideas and their impact.

After Life

As well as discovering the ancient Egyptians' beliefs about the after life, find out about some personal reflections, and potential options, for funerals and remembrance today. The After Life exhibits are displayed within the Ancient Egypt gallery.

Made in Africa: Portrait of an Ife Ruler

Be awed by this sculpture of an Ife head, on tour from the British Museum. The Kingdom of Ife was a powerful, cosmopolitan and wealthy city-state in West Africa. It flourished as a political, spiritual, cultural and economic centre in the 12th-15th centuries AD, and was an influential hub of local and long-distance trade networks.

EVENTS

Saturday 13 Feb, 11am-4pm

Big Saturday, Darwin's 201st Birthday Bash

You are invited to Charles Darwin's 201st birthday party! Join in some party activities, hold some amazing objects or go to a talk or tour. Why not come dressed as Darwin or one of your favourite animals? Most activities are free and drop-in. Some activities may need to be booked on the day and may cost up to £1.50. All ages

Monday 15 - Friday 19 Feb, 11am-4pm

Half-term: Voyage of the Beagle

Recreate the adventures of Charles Darwin's voyage around the world. Part of The Evolutionist, a Darwin extravaganza at The Manchester Museum. Most activities are free and drop-in. Some activities may need to be booked on the day and may cost up to £1.50

Friday 26 Feb, 11am-12pm

Magic Carpet: Darwin's animals

Get comfy on our magic carpet and enjoy stories and activities. Book on 0161 275 2648 (from 19 Feb), £1 per child, Under 5's and their families/carers

Saturday 27 & Sun 28 Feb, 2-3pm

Victorian Gentleman Tour

Discover the wonders of the world with our Victorian gentleman guide, Graeme Pye Esquire. Ask him for an 'I've spied Mr Pye' sticker. Drop-in, Free, All ages

Most activities are free and drop-in. Some activities may need to be booked on the day and may cost up to £1.50

Opening hours

Open: Tues-Sat 10am - 5pm
Sun-Mon (and Bank Holidays) 11am - 4pm
FREE Admission

The Manchester Museum
Oxford Road, Manchester
0161 275 2634

www.manchester.ac.uk/museum



John Rylands Library (Deansgate)

EXHIBITIONS

I am Christina Rossetti! *until 7 Feb 2010*

An intimate display of material from the collections which shed light on the remarkable life and work of Christina Rossetti.

Kings and Heroes: The Shahnama of Ferdowsi

18 Feb to 27 June 2010

The Shahnama, or Book of Kings, is an epic poem written by the Persian poet Ferdowsi. The national epic of Iran, it tells the mythical and historical past of Iran from the creation of the world up until the Arab conquest of Persia in the 7th Century. The John Rylands Library holds a significant number of illustrated Shahnama manuscripts, and this exhibition celebrates the millennium of the poem's completion in 1010 CE.

EVENTS

Collection Close-Up with Library Tour *every third Thursday in the month, 12.15pm*

With one of our curators, enjoy a closer look at material from the Library's world famous collections and find out more about this magnificent building.

Public opening hours

Mon 12-5pm, Tues-Sat 10am-5pm, Sun 12pm-5pm

Reader opening hours

Mon-Wed 10am-5pm, Thurs 10am-7pm, Fri-Sat 10am-5pm
FREE ADMISSION

The John Rylands Library
150 Deansgate, Manchester, M3 3EH
0161 306 0555
email jrl.visitors@manchester.ac.uk
www.manchester.ac.uk/library

International Society

WINTER TRIPS

Sat 6 Feb

Lake District visiting Windermere

Sun 7 Feb

Manchester United Stadium

Sat 13 Feb

North Wales visiting Blaenau Ffestiniog Railway and Portmeirion Village

Sun 14 Feb

Tatton Park's Scarecrow Festival

Sat 20 Feb

York and the Yorvik Viking Festival

Sun 21 Feb

Warwick Castle

Sat 27 & Sun 28 Feb

OVERNIGHT VISIT to Edinburgh with guided coach tour

Sat 27 Feb

Yorkshire Dales visiting White Scar Caves and Skipton Castle

Sun 28 Feb

Stratford-Upon-Avon

Opening hours

Mon-Fri 9.30am - 7pm (during term time)

Mon-Fri 9.30am - 5pm (during vacation)

Small World Café opening hours

Mon-Fri 11am - 3pm

327 Oxford Road (next to Krobar)

0161 275 4959

email int.soc@anchester.ac.uk

www.internationalsociety.org.uk



The Whitworth Art Gallery

DISPLAYS/COLLECTIONS

The Manchester Indian: Thomas Wardle and India *until summer 2010*

This exhibition celebrates the centenary of the death of Sir Thomas Wardle (1831-1909). Still perhaps best known for his collaboration with William Morris, the exhibition focuses on Wardle's efforts to reinvigorate the silk industry in India as well as the impact that India had on his work.

Deep Rooted, How Trees Shape Our Lives

until May 2010

What do trees mean to you? Drawing from the Whitworth's internationally important collection of watercolours and drawings, this exhibition explores how trees and woodland shaped our lives.

The Complete Roberta Breitmore: Lynn Hershman Leeson *until summer 2010*

In San Francisco in the mid-Seventies, Lynn Hershman Leeson created Roberta Breitmore and performed this persona as a work of art over a four year period, documenting it through artifacts, photography, film and sound. This extraordinary body of work, which raises questions about the complexities of identity and the nature of the work of art, has been purchased by the Whitworth in its final edition and is shown here for the first time in its entirety.

EVENTS

Every Sunday 1.30pm - 3.30pm, Family Friendly, Free
Colourful Sundays

Drop into the gallery any Sunday afternoon for free and fun creative activities at Colourful Sundays. Suitable for all ages, no need to book.

Every Tuesday 11am -12.30pm, Free

Tuesday Talks

Each week an artist, thinker or critic talks about their work, influences and inspirations.

Collection Exhibitions Archive Now Online

The Whitworth's online 'Collections Catalogue' now allows you to browse and search selected exhibitions held at the Gallery over the past 10 years. Follow the link from homepage:

www.whitworth.manchester.ac.uk

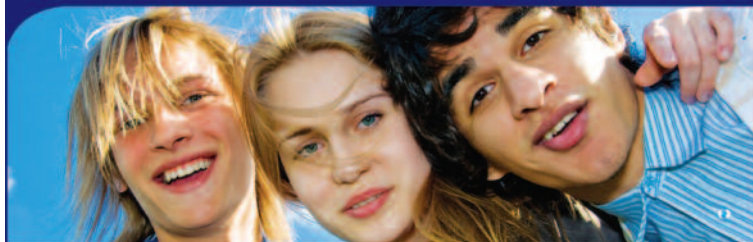
The Whitworth Art Gallery

Oxford Road, Manchester

0161 275 7450

email whitworth@manchester.ac.uk

the Together Trust



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or visit www.togethertrust.org.uk

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WWW.MEETING.CO.UK

An exhibition with bite

Chosen as the centre-piece for a new community exhibition, this Bengal tiger (pictured) is now on display in North City Library, Harpurhey.

As part of The Manchester Museum's Darwin celebrations, a group of young people from the Moston 'Steps Project' curated an exhibition about evolution and Charles Darwin. Working with Museum curators and exhibition artist Chrissie Morgan, the group set about exploring their ideas of identity and feelings about Darwin and evolution.

Using the Museum's collection they chose a variety of objects to show how plants and animals have adapted to changes in their environment. Amongst them is the tiger, a selection of skulls from the cat family showing species variation and an original Hindu carving. The objects are displayed alongside the groups own artwork.

Commenting on their selections, the group said 'we chose to feature the tiger as it the ultimate predator. The tiger is a perfect example of successful adaptation. Its famous stripes act as camouflage and its large teeth and claws are perfect for catching prey. The tiger is part of the cat family, just like house cats and lions, but because of evolution it looks and behaves very differently.'

Steps is a complimentary education service for young people not in mainstream education. Working with Manchester Museum between September and December 2009, their research took them to a number of other museums and sites including Chester Zoo and Boggart Hole Clough, where they found out about Charles Darwin, the natural world and adaptation.

Their work will be on display in the North City Library, Harpurhey until Friday 26 March 2010.



www.manchester.ac.uk/museum

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Tel: 0161 274 4444 Fax: 0161 274 3555; Email: btsales@deltatravel.co.uk

News Contact

News and story ideas

Internal Communications Office

tel 0161 275 2112

email uninews@manchester.ac.uk

online www.manchester.ac.uk/staffnet/news

Deadline 10 February 12 noon

Events Contact

Events and listings information

Philippa Adshead

tel 0161 275 2922

email unievents@manchester.ac.uk

Deadline 10 February 12 noon

Adverts Contact

Ads

Janice Drew

tel 0161 275 2113

email uniads@manchester.ac.uk

Deadline 10 February 12 noon