Newsletter of
Darwin College
Spring 2012

THE DARWINIAN

NEW MASTER FOR DARWIN COLLEGE

Sadly, Darwin Master Professor Willy Brown is retiring at the end of September this year after a successful twelve years as Head of the College. With this in mind the College Governing Body have spent the last few months interviewing, discussing and deliberating who could step into Willy's auspicious shoes.

Professor Mary Fowler

Following this extended process it is with great pleasure that we can now announce that from 1st October 2012 Professor Mary Fowler, currently Dean of Science at Royal Holloway, University of London will become our sixth Master and first female Head of House.

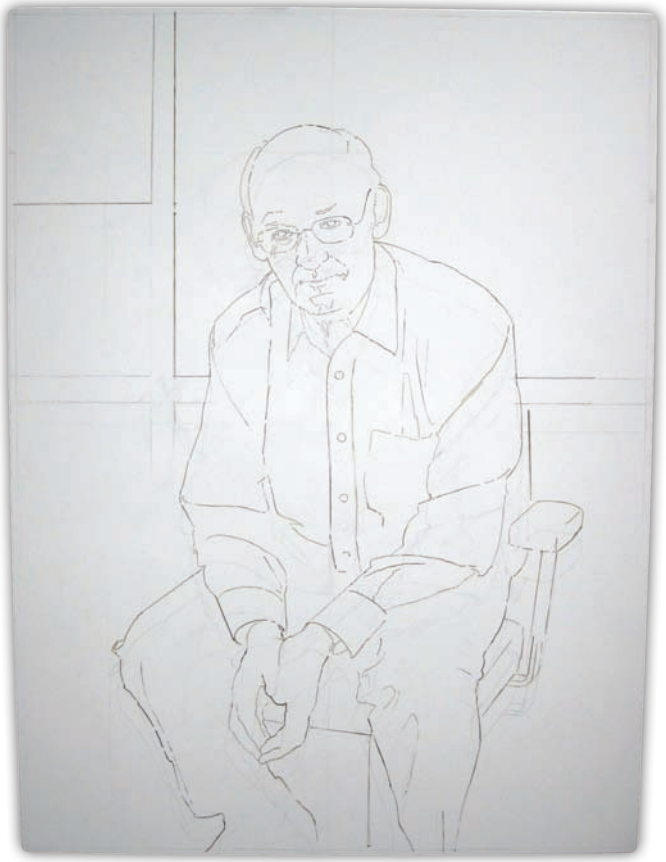
Mary comes from a very distinguished academic family, the best known of whom is her Great-Grandfather Ernest Rutherford. Just over a century ago he described the internal structure of atoms for the first time, and for his work received a Nobel Prize for Chemistry in 1908.

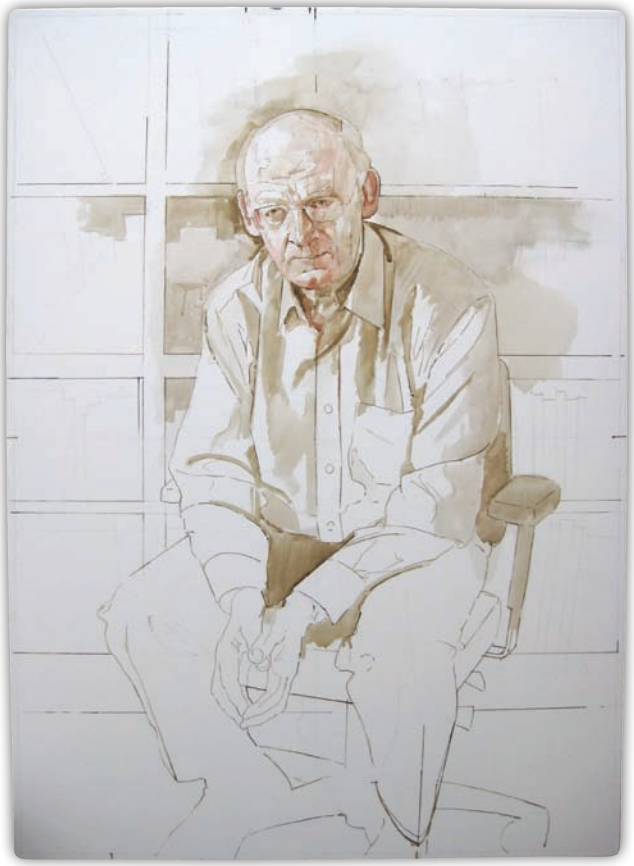
If Mary's name feels familiar to you it is because she is an Old Darwinian. She was a student here from 1972 to 1976 studying for a PhD in Geophysics.

If this were not enough Mary's husband and one of her children are also Old Darwinians. Professor Euan Nisbet studied for a Geology PhD from 1970 and is currently Professor of Earth Sciences at Royal Holloway. Dr Ellen Nisbet was here from 2000-2005 and gained a PhD in Biochemistry. Following that she became a Darwin Research Fellow before going on to her current work as a Lecturer at the University of South Australia.

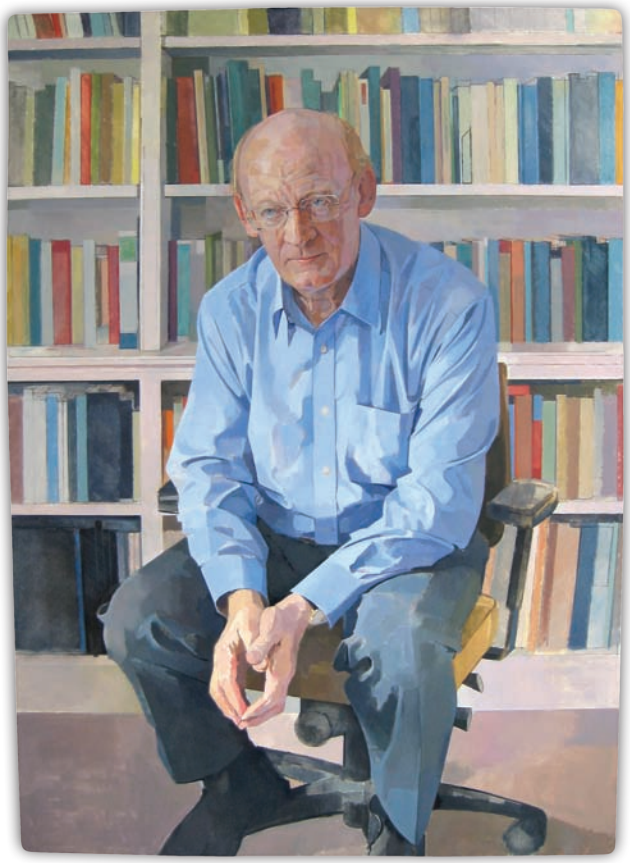
There will be a full report about Willy's retirement and our new Master in the next issue of The Darwinian.

Inside





THE DAYS IN THE LIFE OF A PORTRAIT



The Master's portrait was unveiled in July 2011, and now hangs in the Old Library at Darwin. Here, the artist, Geoffrey Hayzer RP, tells the story of its creation:

From the moment that I make the first mark on the primed white surface of the canvas, I know that I have just begun something that should never really be finished.

It will change daily, progressing, regressing and advancing again as I try to bring the image to a point where I can say to myself enough is enough and what I have achieved satisfies me. The time that it takes for this stage to be reached will inevitably vary from commission to commission but it is always, in my case, a long one.

Any painting is a record of its life, from the untouched surface to the top of the final visible layer of paint. This is particularly true during the making of a portrait. If you so wished, and I sincerely hope that you do not, you could take an oily cloth to my painting of Willy Brown and, by wiping away each thin layer of pigment, flick back through the pages of a painted diary. In doing so you would reveal many truths that I would rather you didn't know and several facts that I am more than happy to share.

You will find logged a number of pleasant hours spent in the company of Willy, in his office and at lunch, as I gathered the reference that would feed the long and lonelier hours of work at home in my studio. As we talked and worked, he outlined his love of many things, his role as Master of Darwin College, his passion for the Yorkshire Dales, pending trips abroad and some of his future plans. We discussed our mutual admiration for the work of other painters, our hobbies, our histories, his family and mine.

As you continue to vandalise my work you would find me pacing to and fro changing this, redrawing that, scraping it off and putting it back on again having decided that I shouldn't have scraped it off in the first place! Some days I would modify the composition as things that I assumed I had already nailed into place turned out to be misplaced. Features were enlarged, made smaller, fatter, thinner, or simply needed to be pictured how I wanted them to be rather than how they actually were. From day to day you would see how the colours changed here, there and eventually everywhere as neighbouring tones were tweaked to pull a knee forward, move a shoulder back, shape the tip of a nose, bring light to an eye and warmth to a cheek. There would be good days. There would be slow days. There would be 'if only I could do that bit there' days when nothing seemed to work. There would be 'turn it to the wall' days to work on something else and wonderful days when the adrenalin flowed and every thing came alive. Then there would be the day that my father died.

I have never observed any thing as still, stopped or as finished as my dead Dad.

Life, as we know, goes on. It moves, breathes, it is unfinished. And so the changes to my painting continued, I forget how many more but you'll find them all there, until the moment arrived when I made my last mark on the portrait of Willy Brown. It now hangs in Cambridge and is part of the continuing life of Darwin College. I could go on but I'm satisfied that I have done enough.

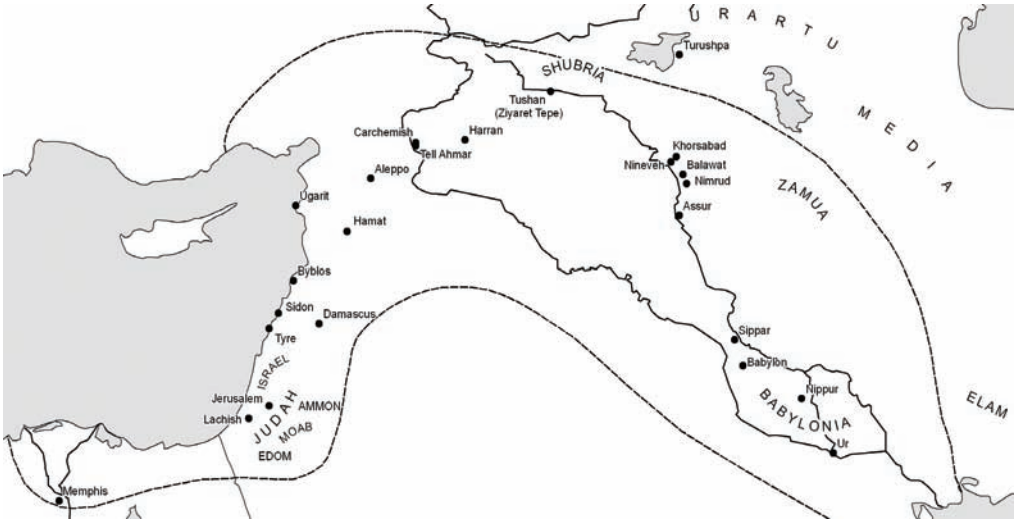
Geoffrey Hayzer, Artist

UNCOVERING THE MIGHT OF ASSYRIA

The Ziyaret Tepe Archaeological Project

For an empire which in its day was the greatest the world had ever seen - perhaps indeed the first true empire - it is remarkable how in some corners the memory of Assyrian rule was all but forgotten. Nowhere is this more true than in the Upper Tigris region of south-eastern Turkey. Subsequent to the recovery and decipherment of cuneiform texts from the ancient Assyrian capitals in Iraq (above all, Nineveh, Nimrud and Assur), it had been known that Assyrian kings had first campaigned in the region and then comprehensively settled it, but beyond this very little else could be said. The discovery in the 1860's by Taylor, the British consul in Diyarbakir, of two stelae inscribed in cuneiform provided concrete evidence that the surmises from texts found in Mesopotamia were correct but this was followed by a hiatus lasting more than a century in which almost nothing could be added to the picture.

Fortunately in the closing years of the twentieth century this state of affairs began to change. The decision of the Turkish government to construct the dam at Ilisu meant that attention really had to now be paid to the archaeological resources of the Upper Tigris and surveys identified hundreds of sites from the palaeolithic up to modern times. Among these one site, Ziyaret Tepe, stands out as truly exceptional. Its very size - a mound 30 m high and a total area of 30 hectares - combined with the presence of a thick scatter of Assyrian ceramics immediately suggested it was likely to be an Assyrian site of major importance.



In these circumstances the Ziyaret Tepe Archaeological Project (ZTAP) - an international collaboration with teams from Turkey, Germany and the United States as well as Britain - was inaugurated with the aim of exploring and documenting as much as possible of this site before it disappears forever. Excavations began in the year 2000 and since this time I have been privileged to be leading the British Expedition. Using a combination of remote sensing backed up by targeted excavations, this work is beginning to reveal the inner workings of one of the great cities of the Assyrian empire. The existence of a defensive wall has been proven and its course plotted; gates located and explored; the governor's palace discovered and investigated; a major administrative complex identified and excavated with sensational results. The layout of the street network is emerging and with this an increased understanding of the probable location of both elite residences and low status housing.

Images
Top: Map of at Assyrian Empire
Middle: Mannu-ki-Libbali letter
Bottom: Ziyaret Tepe

One find of exceptional importance is the discovery of an archive of clay tablets written in Assyrian cuneiform. To date approximately thirty texts have been recovered. The contents of these texts - lists of names, tallies of horses and textiles, loans of grains - cast a fascinating light on the activities of the imperial administration whilst their very date makes them extraordinary. For these texts do not come from just any time in the Assyrian control of the city, but from the very end of the occupation, 614-611 BC. To put this in context, Nineveh, the great Assyrian capital, fell in 612 BC, and though this event did not quite mark the complete end of the Assyrian state, it certainly did spell the end of Assyrian supremacy. In fact, the Assyrian government fled westward to Harran and staggered on for just a few more years until it too was finally extinguished. Accordingly, our texts from Ziyaret Tepe are an insider witness to the final collapse. In the case of one letter - from an officer who had evidently been ordered to raise a unit of chariotry - the evidence is breathtaking. He writes back that such an order can no longer be carried out: the registers of soldiers have not been kept up to date and the personnel required to maintain a fleet of chariots have fled. He goes on to ask why he alone must stay behind and die. Without question this letter can only have been composed as Assyria was in the process of collapse; as a first hand account of the empire in its death-throes it is unique.

Taken together this combination of archaeological and textual evidence is giving us an unparalleled insight into the life and death of one of the great empires of antiquity. This research is making a fundamental contribution to near-eastern archaeology.

Dr. John MacGinnis
McDonald Institute for Archaeological Research

INTERVIEW

Jamie Shotton, Microsoft Research Fellow at Darwin 2008–10, and part of the team who brought the Kinect for Xbox 360 into being, talks here about his research:

What sparked your interest in computers?
I've been fascinated with electronics and computers for as long as I can remember, though it was probably my uncle showing me how to program his BBC B Micro that really got me hooked.

You studied a degree in computer science and PhD in visual object recognition at Cambridge. What was it about Cambridge University that encouraged you to study there?
Well, beyond the name and the slightly more theoretical courses on offer, my father had studied here and encouraged me to apply for which I'm extremely grateful.

During and after your studies you did a couple of internships at Microsoft Research and now you are a full time researcher at the Cambridge lab. You must like it here?
I love it! It's a fabulous environment to work, packed with world-class colleagues. We're also given great resources such that we can just get on and do the work, and there's always the real possibility to get our research out into products that reach millions of people.

As a Microsoft researcher you get to set your own research agenda and tackle challenging research problems. How do you decide what to work on?
It's typically a combination of what we find interesting academically and what we think will be important for future Microsoft products. These often align very nicely as they did for Kinect.

It's been widely publicised that you were part of the team that contributed a fundamental piece of technology to Kinect for Xbox 360 - that being the machine learning for human-motion capture. That must have been an exciting project to work on?
It was an exhilarating, though exhausting, ride. The rate at which we had to progress in order to launch on schedule was somewhat faster than the typical research project!

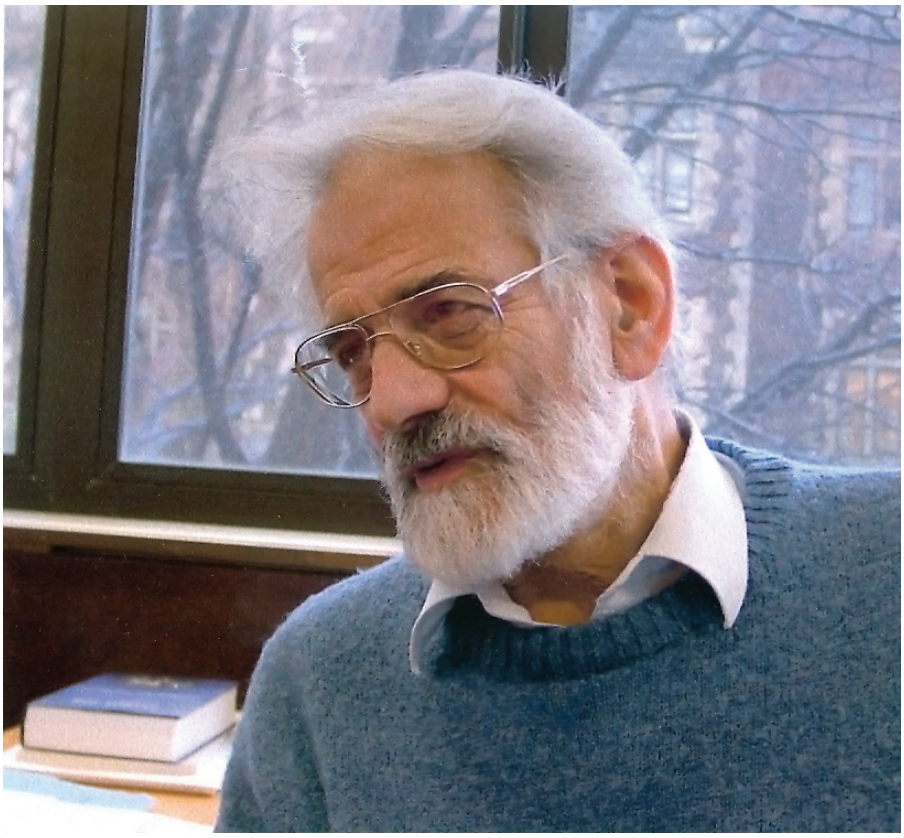
What has been the proudest moment in your career to date?
I think it was watching the web-cast of E3 (the Electronic Entertainment Expo) 2010 where "Project Natal" (Kinect's early code-name) was first announced to the world, and knowing that it was really real and I had helped make that happen.

If you could pass on one piece of advice to students reading this, what would it be?
Dream big and challenge yourself to be the best you can be.

Interview by Rachel Howard, Marketing Communications Manager at Microsoft

OBITUARIES

Peter Gathercole:
Curator, Archaeologist, Museum Ethnographer and Darwin College Dean (1929 – 2010)



Peter was born in rural Norfolk in 1929 and remained to the end of his life acutely conscious of the struggle borne by his parents at this time of great economic hardship, his father coping with difficulty with the afflictions wrought upon him by his service as a World War One soldier. Moving to Ilford, Essex to be closer to Gathercole family members, while Peter was still a small child, his parents were determined to secure a good education for their son and were guided towards entering him for a scholarship to St Paul's Cathedral Choir School in London where his passionate interest in music began.

In September 1939 Peter's school was evacuated to share schooling with Truro Cathedral Choir School and thus began his long love affair with Cornwall. In 1943 he moved on to Clifton College, again on a scholarship, the school having been evacuated from Bristol to Bude. Returning only briefly for one year to Bristol and preparation for a Cambridge scholarship, he was already developing strong left wing views and took regular delivery of the 'Daily Worker', much to the irritation of his headmaster, Bertrand Hallward.

Peter did his army national service between 1947 – 1949, serving in Egypt where, as he later recalled with a certain wry humour, he was promoted to the rank of Warrant Officer, serving in the Army Education Corps. Peter took this role very seriously and perhaps learned from it that he was truly a born and gifted teacher. In notes Peter wrote later in life he recorded how in September 1948, aged 19, he picked up a copy of RGS Collingwood's autobiography at a Suez Station bookstall and noted that although the author found Marx 'wanting' he described him as a 'fighter'. 'I approved of that', Peter wrote.

In 1949 Peter began his university studies in History at Peterhouse, Cambridge, on an Open Minor Scholarship. He changed his studies to Archaeology for Part 2 of the Tripos and thus began his career in the field to which he devoted the rest of his life. In 1952 he began a two year Postgraduate Diploma in European Prehistoric Archaeology at the Institute of Archaeology in London. It was here that he met the Australian Marxist archaeologist, Vere Gordon Childe, whose work was to remain a vital influence to the end of Peter's life.

From London Peter and his wife Falmai, moved to Birmingham where he had a post as a trainee assistant in the City Museum's department of archaeology, ethnography and

local history. With a young family to support and the need to generate extra income, Peter took on the directing of rescue archaeology excavations in various locations, including Clausentium, the Roman Southampton. From Birmingham he was appointed Curator to the Borough Museum and Art Gallery, Scunthorpe, which he described as having 'rich geological and archaeological collections'. In 1958, at the suggestion of Jack Golson, a Peterhouse contemporary and Communist Party colleague, Peter and his family moved to New Zealand where he was appointed to a lectureship in Anthropology at the University of Otago, Dunedin, simultaneously being appointed Keeper of Anthropology at the Otago Museum. The tasks of developing university studies and promoting the Museum were daunting, taking up much of his capacious energy. His responsibilities included curating the Museum's diverse cultural collections, undertaking archaeological fieldwork on the South island and on Pitcairn, as well as developing and teaching new university courses in archaeology and anthropology. As he recorded later, 'Perforce I became a Pacific specialist'. Working alongside H D Skinner, who had studied with A C Haddon, the Oceania ethnologist, and Baron Von Hugel,the founding Curator of the Museum of Archaeology and Anthropologist at Cambridge, Peter found much satisfaction in becoming part of the conduit of thought and experience which passed between these generations of scholars in archaeology. Peter's involvement in New Zealand archaeology and Maori history remained a lifetime engagement.

In 1969 Peter returned to the UK to a lectureship in Ethnology at the University of Oxford at the Pitt Rivers Museum, where, at the instigation of Bernard Fagg, he began work on curating an exhibition of the Museum's collection of 'artificial curiosities' from James Cook's second voyage. This was the start of a long and fruitful scholarly collaboration with his second wife, the American anthropologist, Adrienne Kaeppler, and for the rest of his life Peter continued to work on what he described as 'Cookery', making a major contribution to the contextualising and understanding, through close study of Cook collections, of Pacific and Polynesian societies in the late-18th century.

In 1970 Peter returned to the University of Cambridge as Curator of the Museum of Archaeology and Anthropology and spent the next ten years re-organising the Museum's collections and storage with the view that the work was urgently required, discovering that objects deep within the Museum stores only became accessible when objects in front of them had been removed. He worked strenuously and successfully to alter the view that the Museum and its collections were peripheral to the business of the faculty. During this period he was very active in encouraging the work of museum ethnographers as a founding member of the UK Museum Ethnographers Group. Peter organised its first meeting in 1975 and was the group's first chair and continued to maintain his involvement with MEG, contributing to its publications and conferences. He was delighted when the MEG 2004 annual conference was held in Cambridge in his honour and in celebration of his seventy-fifth birthday.

In 1977 Peter became a Fellow of Darwin College, resigning from his post in the Museum in 1981 to take up the duties of College Dean. His time at Darwin brought him enormous pleasure and as Dean there for over five years he captivated and assisted a host of graduate students who remember him with gratitude and affection. In this last part of his working life he was truly inspirational.

In 1985, as a Visiting Lecturer at Southampton University, Peter and David Lowenthal took on the task of assisting the late Peter Ucko in organising the First World Archaeological Congress which was beset by conflict between opponents of South African apartheid and defenders of academic freedom. As David Lowenthal has noted in his appreciation of Peter (*antiquity. ac.uk/tributes/gathercole.html),* the eventual success of the Congress owed much to Peter's persistent, patient and determined diplomacy, leading to the publication, which they jointly edited, of the One World Archaeology volume, *The Politics of the Past.*

Peter retired officially in 1989 with a determination to complete unfinished research and the writing up of his book on Gordon Childe. In 1993 he and his partner, Bobbie Wells, bought a cottage in Veryan, Cornwall where Peter was to spend the last seventeen years of his life and they enjoyed many happy holidays on St Agnes, Isles of Scilly. He took a quiet pride in the lives of his four children, grandchildren and great-grandchildren. In the Veryan cottage there were always family letters, photographs and postcards, lying alongside his many piles of academic files and books. During this time, too, Peter renewed his acquaintance with the Cornwall of his boyhood, making new friends at the Royal Cornwall Museum in Truro and taking on the presidency of the Cornwall Archaeological Society between 1997 – 2000, as well as assuming the editorship of the Society's journal for a number of years.

To the very end of his life Peter maintained his intellectual zeal and exuberance, writing up his final papers, and his overall published output is phenomenal. In one of his last papers, 'Gordon Childe: memories and affirmation', published in *Antiquity* shortly after his death, Peter commented on Childe's view that the study of archaeological knowledge had the potential to play an important role in enabling people 'to think more clearly and so behave more humanely'. This was a guiding principle in Peter's own life and work and one from which he never wavered. He had a very great capacity for friendship and an enthusiasm for life which even now seem indistinguishable. That his friends were able to celebrate his life as they have done with so many heartwarming personal tributes is a testimony to the enduring memory of a most lovable, decent and inspirational man.

Bobbie Wells, Clare Hall, Cambridge

DARK MATTER

Vice-Master, Andy Fabian, explains

There is far more to the cosmos than meets the eye; the galaxies and stars that we observe with our telescopes are only a tiny fraction of what is out there. What is dark matter? The answer is that astronomers don't know what it is, but are pretty sure it exists. Just like the normal matter out of which the Sun, the Earth and you are made, dark matter has gravity. Unlike normal matter, however, it does not interact with light in any way, and so it is invisible. Its presence can only ever be inferred by its gravitational pull on luminous objects such as galaxies, clusters of galaxies and stars.

The presence of dark matter was first inferred back in the 1930s by Fritz Zwicky at Caltech, who noticed that some galaxies clustered together in the constellation of Coma were moving relative to each other too fast for the number of stars present to hold them in such a tight grouping. We for example are orbiting the Sun at 30 km/s, a value which is determined by the Sun's mass and our distance from the Sun. The galaxies are moving at about 1000 km/s (as measured by the Doppler shift of their spectra) and there are several hundred of them within a region of size about 3 Million light years. The total mass of the cluster deduced from the dynamical motions is then about a thousand trillion times greater that of the Sun. Adding up the light from all the stars and gas clouds in the galaxies in the cluster implies that the total luminous mass present is about ten trillion times the mass of the Sun. There is a discrepancy of a factor 100 between the total mass inferred and that directly observed.

Early called the 'missing mass' problem, several strands of evidence indicate that the dynamical mass is correct, and that it is not the mass which is 'missing' but the light. The mass of clusters is dominated by dark matter. Confirmation of this can be found from the way that the gravity of clusters distorts light from background galaxies, Distorting their appearance into arcs and multiple images, rather like a giant, poorly made lens can do. (Look through a wine glass, or the bottom of a beer bottle to see similar images for yourself.) Another example, which I particularly study, is that clusters are observed to have massive atmospheres of hot gas. At 100 million degrees this gas is so hot that it emits high-energy X-radiation. But a cluster without dark matter would not have enough gravity to confine such energetic gas. The mass of hot gas in this intracluster atmosphere is about 7 times that of all its stars. But even though it contributes to the amount of 'normal' matter present, when summed with the mass contained in the stars in the galaxies, it is still insufficient to account for the gravity of the cluster; the luminous matter still can only account for around one-fifth of the total matter in a cluster.

Giant haloes of dark matter are also inferred to surround all galaxies, including our own. Responsible for most of the gravity, it is the dark matter that drives galaxy formation. Gravitational aggregation of dark matter into clumps is followed by the infall of normal matter to make the galaxies we observe.

But what is this dark matter? We know from the relative amounts of light elements formed early in the Big Bang - hydrogen, helium, deuterium etc. - that the amount of normal matter we see is all there is. Dark matter must be something completely different from normal matter. There have been many suggestions; MAssive Compact Halo ObjectS (MACHOS) such as the compact remnants of dead stars, have been ruled out and Weakly Interacting Massive ParticleS (WIMPS) are a better bet. One of the best candidates is the lightest supersymmetric particle dubbed the neutralino - but so far, despite predictions from 'supersymmetry' theories in particle physics, no one has detected a neutralino. The Large Hadron Collider might find them, but has not done so yet. Perhaps the particles comprising dark matter are something beyond our current understanding of physics. Normal matter comes in many different types which combine to give the rich complexity of life. Perhaps dark matter similarly has different flavours.

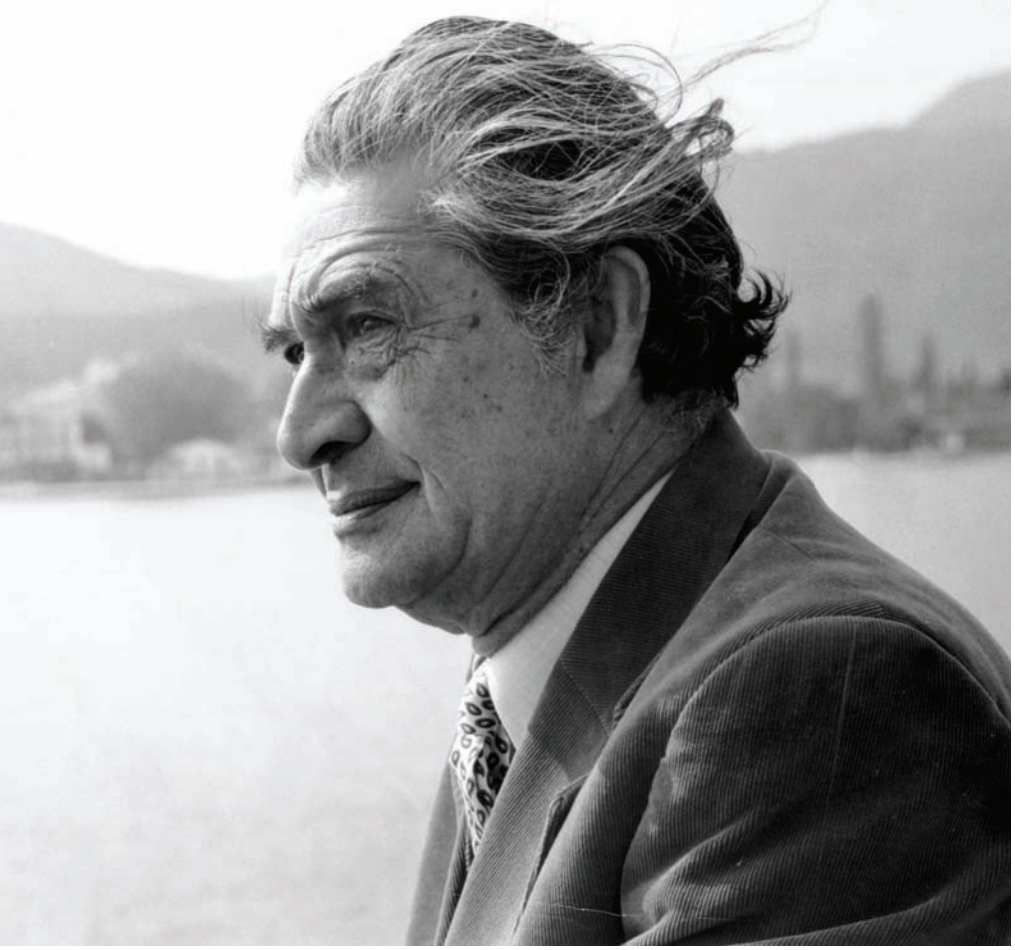
Image (courtesy of Harvard Chandra X-Ray Observatory) Site of a collision between two large galaxy clusters about 3.4 billion light years from Earth

I find it exciting that there are things we know exist, even though we don't know what they actually are. Perhaps a dark matter particle just whizzed through my room; I don't know and am not sure how I would know. Scientists are searching underground for atomic nuclei recoiling from dark matter collisions, but the jury is out over whether anyone has detected anything. Maybe dark matter particles do have an incredibly weak sort of interaction meaning they are producing a faint gamma-ray glow in the centres of clusters and galaxies. It is possible that we shall learn the true nature of dark matter this year or in the next decade. It's also possible that it will remain a mystery for decades. Whether determining its nature will have any practical use is even less obvious, though in making the discovery we shall have learnt a lot more about fundamental physics.

Of course, there is an even greater problem. normal matter contributes 4% to the total contents of the universe, and dark matter contributes 24%. There is yet another 72% of the cosmos that is invisible. We invoke the presence of 'dark energy' to account for this. The word 'dark' is again flagging that we don't know what it is, even though it is the dominant component of the total mass-energy of the universe. Dark energy is responsible for causing the expansion of the Universe to accelerate as was discovered in 1998, winning Saul Permutter, Brian Schmidt and Adam Riess the Nobel prize in Physics last year (2011). Even less is known about the nature of dark energy than dark matter, apart from the fact that it is surely even more mysterious!

There are, of course, no pictures of dark matter. The above picture does however show some of the best evidence for the existence of dark matter. It shows the "bullet cluster" which is the result of a collision between two clusters and the most energetic event known in the Universe since the Big Bang. It is a composite of a) a Hubble optical image showing galaxies b) a blue glow representing the mass inferred from gravitational lensing of background galaxies (this is the dark matter) and c) pink clumps showing the X-ray emitting gas, as imaged by the Chandra X-ray telescope. The X-ray gas represents most of the normal matter present and has a higher mass than all the stars in the galaxies. It has been scrunched up by the collision because the gas particles are charged and thus interact with each other (via powerful shocks). Dark matter has no charge or collisions so is seen as two more widely spaced clumps which have passed through each other within the past billion years.

Andy Fabian OBE FRS, has recently been awarded the Gold medal in Astronomy from the Royal Astronomical Society, their highest honour given for 'extraordinary work' in the discipline.



MOSES FINLEY CENTENARY CONFERENCE

FACULTY OF CLASSICS, CAMBRIDGE

On 29th-31st May 2012, the Faculty of Classics is organizing a conference to celebrate the centenary of Moses Finley's birth, and investigate his impact as a scholar. Given Finley's close association with Darwin, the college will also be fully involved in hosting the conference and two of its organizers are current/former Moses and Mary Finley Research Fellows: Dr Daniel Jew and Dr Michael Scott.

During each day of the conference, academic speakers from across the world who knew Moses Finley personally, or who have benefitted from his generosity and that of those who knew him through the research funds established in his and his wife's name, or who are currently involved in the latest scholarship in research areas close to Finley's heart, will deliver papers analysing Finley's impact in a range of fields. Topics include Finley's impact on Homer, Finley's Democracy, Finley's Sicily, Archaic Greece, Ancient Economy, Finley on Rome, as well talks on the making of Moses Finley and Darwin's own Geoffrey Lloyd on Finley and the University.

In conjunction with the conference, a small exhibition will take place in Darwin College exhibiting some of the letters and videos from our archives featuring Moses and Mary Finley. The conference dinner will also be held in Darwin College.

Attendance at the conference (and exhibition and conference dinner) is possible, but numbers will have to be limited because of space constraints. Any Darwinians keen to attend should in the first instance contact Dr Michael Scott (mcs45@cam.ac.uk), who will be able to confirm whether places are available nearer to the time of the conference.

FROM THE ALUMNI OFFICE

50TH ANNIVERSARY

In 2014 the College will celebrate the 50th Anniversary of its foundation. In 1964, the three founding colleges – Gonville and Caius, Trinity, and St John's – foresaw the pressing need to focus support on the rapidly expanding area of graduate education, and so Darwin College was born. It began in the smallest of ways: a Master, Sir Frank Young, eleven founding Fellows, a cook and a porter/handyman … the first student members (just twelve) did not arrive for months.

As you can imagine, 2014 will be a milestone year for the College. We would love to see as many of you back here during the year as we can; we would be especially grateful for your stories, memories and, particularly, any photos of your times here for our 50th Anniversary Book. Please see the leaflet enclosed which gives you further insight into the book and details how to buy the book at a fraction of the cover cost!

Our main Anniversary fundraising goal will be to increase our student accommodation. We still lack residential spaces for all students, because we are a victim of our own success! As fast as we acquire accommodation, our numbers always run on ahead of us, meaning many cannot have College rooms in their second and subsequent years. Our aim is to increase residential units significantly, building as close to the College as possible, perhaps even extending at the rear of Newnham Terrace now that we own the whole terrace. More details on these potential projects are elsewhere in this newsletter.

TELEPHONE CAMPAIGNS IN THE US AND UK

Many thanks to all our American and UK based alumni/ae who gave time

to speak to our student callers during our two recent telethons. We have been very pleased with your response and the funding raised. The feedback we have had from you and the student callers has been terrific. They told you about what is happening at Darwin now – the people, the Boat Club, the food, the latest Nobel Prize, the accommodation …… (take your pick, or add your own!!). You told them about how the College was when you were a student and what you are doing now!

We are planning on calling Old Darwinian's in Asia and Oceania in November; we will let you know more nearer the time. Needless to say, many of our students enjoyed the experience of talking to you so much they are already signed up for November.

NEW MEMBER OF STAFF

You may already have spoken to Danielle Bradshaw (above) who started working as an integral part of the Alumni Team in November last year. She has already proved to be a committed and enthusiastic member of staff. In addition she is a Darwinian having completed her MPhil in Human Evolutionary Studies here in 2011.

DARWIN COLLEGE SOCIETY (DCS)

Many thanks to the Darwin College Society Committee who have arranged so many interesting events in the past few years. Following the DCS election we are pleased to say that all current post holders have been re-elected. Of course, if you would like to help out with the Society or would like the Alumni Office to help organise a reunion where you live please do not hesitate to contact us.

The Darwin College Alumni Team consists of:

The Bursar and Development Director, Peter Brindle. **bursar@dar.cam.ac.uk**

Alumni Secretary, Sophia Smith. **alumni.office@darwin.cam.ac.uk**

Alumni Assistant, Danielle Bradshaw. **alumni.office@darwin.cam.ac.uk**

Bursar's Secretary, Susan Vale. **sv317@cam.ac.uk**

SERENDIPITY

Harry Bhadeshia and Helen Robinson

Darwin Fellow Harry Bhadeshia was in the Secret Garden at Changdeokgung Palace in Seoul, South Korea, contemplating life as we know it, and a lovely lady came up to him and said "Excuse me, are you from Darwin College?"

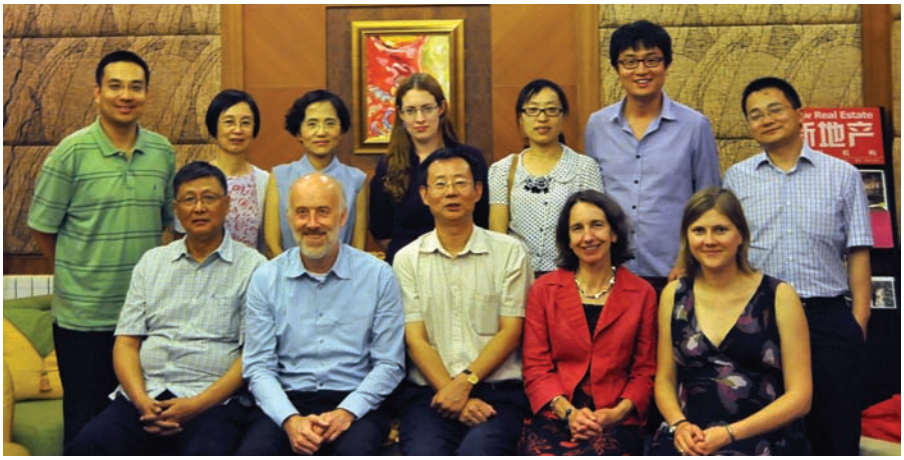
When he recovered, it was Helen Robinson, who was a student at Darwin and left in 2008, the year of the Serendipity lectures. By amazing coincidence, she was briefly in Seoul and took the opportunity to explore the city before departing for her home in Australia. Harry was in Seoul for just two days, the first at Seoul National University and then on Saturday as a tourist. His base in Korea is far from Seoul, in Pohang.

The real excitement is that there are now sufficient Darwinians to meet by random motion - some ten years ago Harry met a former Darwin student in a lift in Japan.

BEIJING REUNION

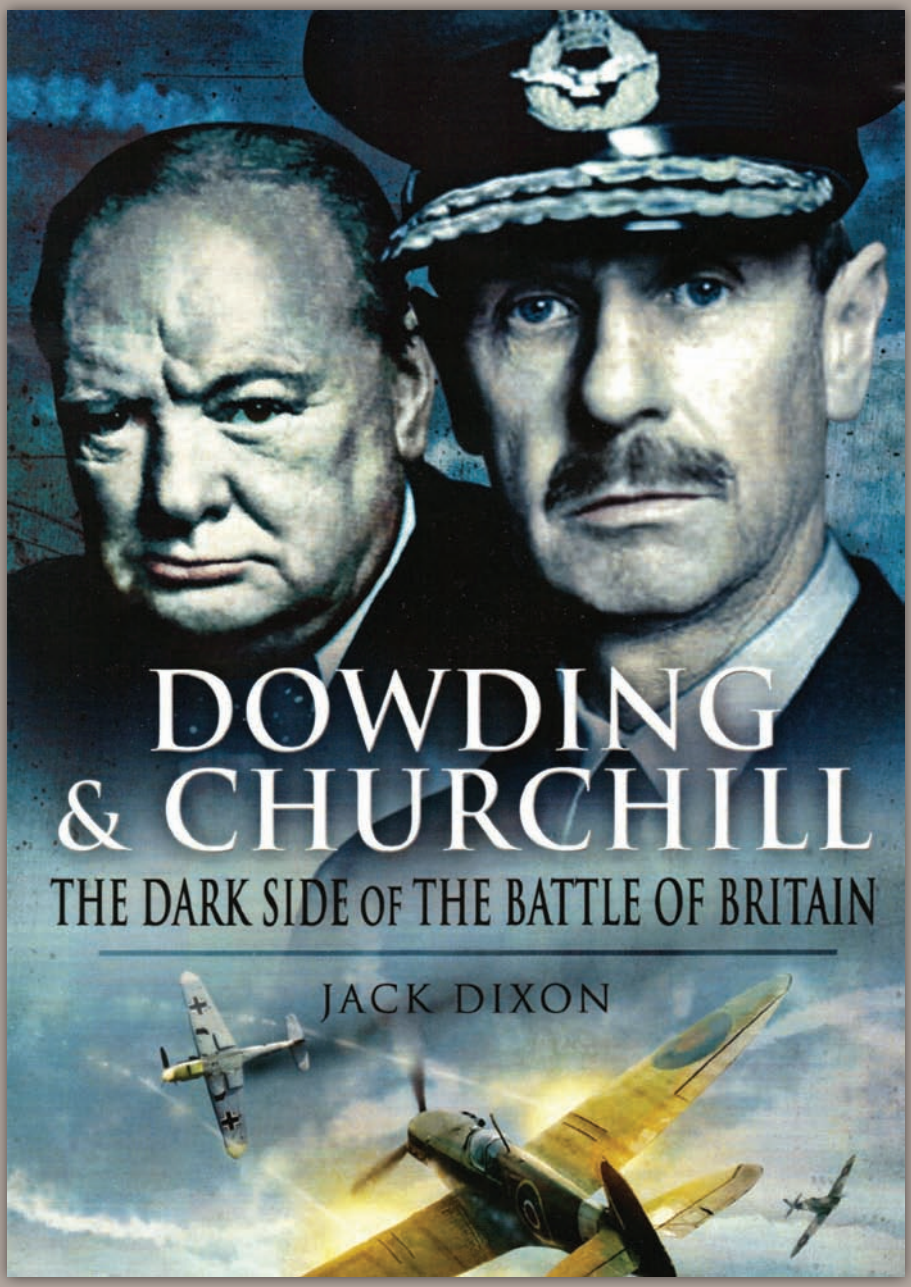
On September 11th, Beijing Darwin alumni met with three Darwin fellows and their archaeological fieldwork colleagues for a delightful meal on Beijiing's busy Wangfujing Street. We heard how our alumni had gone on to successful careers, and were delighted to learn of Darwin women holding important positions in scientific research (Chunyan Zhou at PKU and Lily Zu at BNU) and banking (Kong Hui at the China Development Bank). Among the Darwin men, Tianbiao Zhu is doing well in his post at the School of Government, PKU, and Kaijie Ding is Deputy Chief editor of the *Journal of Comparative Economic and Social Systems*. An impressive group!

Darwin fellows Xinyi Liu, Emma Lighfoot and Martin Jones had just returned from a fieldwork trip in northwest China, and brought their colleagues along to toast the health of the College along with its alumni, on a most enjoyable evening of excellent and plentiful Chinese food, tea and wine.



Back row, l-r: Tianbiao Zhu; Chunyan Zhou; Hui Kong; Emma Lightfoot; Lily Zu; Xinyi Liu; Kaijie Ding. Front row, l-r: Shuecheng Li; Martin Jones; Zhijun Zhao; Lucy Walker; Giedre Keen

BOOKS



Dowding and Churchill
Author: Dr Jack Dixon (Darwin 1972)

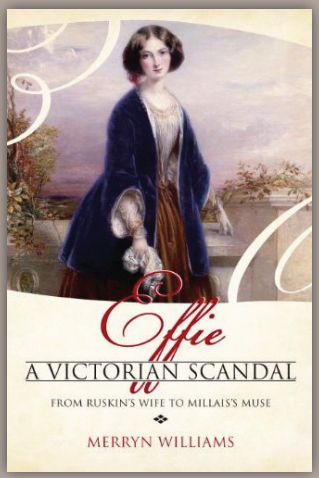
Air Chief Marshal Sir Hugh Dowding was one of the greatest Englishmen of the 20th century. He created Fighter Command with its unique [radar] early warning system from nothing in 1936 to the efficient defensive force it became in 1940. In consequence Fighter Command was the only arm properly prepared for battle when war [came in 1940] against Germany. Dowding led Fighter Command in the Battle of Britain, and was victorious. The campaign [fought from July to October with unremitting ferocity], although a series of defensive engagements, was one of the most decisive battles of Western Civilization. The strategic importance of the Battle was recognized at the time. [Grossadmiral Karl Doenitz, Hitler's successor in 1945, declared it to be the single most decisive battle of the war.] Yet, the battle won, Dowding was summarily relieved of his command [together with his firm right hand, Air Vice-Marshal Keith Park, who commanded 11 Group] without recognition or promotion. This book reveals that [these actions were] the outcome of a shabby conspiracy by fellow officers [notably, Sholto Douglas and Keith Park, who conspired successfully against Dowding and Mallory, and usurped their Commands, only to

demonstrate their own unfitness for those commands. Yet they prospered and were promoted during the War.]

The Air Ministry published a brief account of the Battle in March 1941 and there was no mention of Dowding. Churchill was furiously indignant. But in November 1940 he had acquiesced in Dowding's removal. Why? And what are the factors that led to Dowding's dismissal in the first place? In this thought-provoking and authoritative book, Dr Dixon considers these questions and explains Dowding's true greatness.

This brief account does not do justice to the crucial action of Dowding's in opposing Churchill's quixotic urge to send more and more of Dowding's limited fighter force to France in response to the frantic appeals of the French Command. Had Dowding not won the day, Churchill would have lost us the Battle before it began. Yet not a word of it appears in Churchill's war history. When Dowding was questioned about it, he merely commented: "You would not expect the man who nearly lost us the battle to draw attention to it."

Both great men have earned their place in Valhalla.



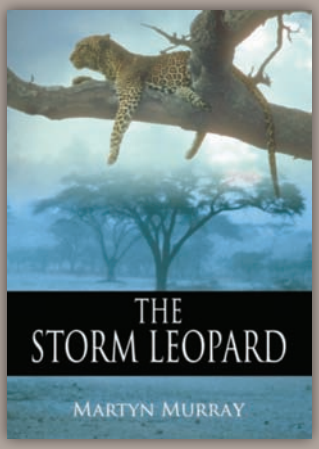
'Effie A Victorian Scandal'
Author Dr Merryn Williams
(Darwin 1966 PhD English)

IN SEARCH OF EFFIE RUSKIN, OR MILLAIS

Effie Gray was the wife of two eminent Victorians, John Ruskin and John Everett Millais, in an age when divorce was practically impossible. The annulment of her first marriage was the great scandal of 1854 and would follow all three around until the last of them died. Yet the full story would not be told for a century, and her reputation would always be slightly spotted. Then and now, she would be written off as a commonplace woman who dragged down two great men.

The real Effie Gray was a charming and very intelligent Scottish girl, educated far beyond most women of her time. Ruskin wrote the children's classic *King of the Golden River* for her and married her when she was nineteen. But he refused to consummate the marriage and told her, after five years, that he was 'disgusted with her person' and that she was either wicked or insane. By this time she had met the brilliant young Pre-Raphaelite John Millais, who painted her in *The Order of Release*. He also painted a famous portrait of Ruskin, after he and Effie had been thrown together and fallen in love. At first, the two idealistic young people could see no way out. But eventually a church court freed her, and they would have a long and devoted marriage.

No one was to blame. Ruskin was a great writer and philanthropist who had personal problems which eventually drove him mad. Millais was a wonderful artist and a kind-hearted man. Effie was a brave and decent young woman who never wanted to be involved in a scandal. (There was a fourth person, Rose La Touche, an unworldly girl whom Ruskin tried to marry and who lost her mind too). George Eliot, in *Middlemarch*, reinterpreted the story; her idealistic heroine marries an eminent older scholar, but the marriage is a disaster and her true husband is a youthful artist. Critics say that 'she could not have been a "nice woman", else she would not have married either the one or the other'. But I disagree.



'The Storm Leopard'
Author Dr Martyn Murray
(Darwin 1982)

The Storm Leopard is an alchemic blend of travel and nature writing that explores the primary dilemma of the 21st century the conflict of modern lifestyles with the natural environment.

This is an account of the author's journey from the Cape to the Serengeti Plains and his search for an answer to the Old Timer, a Kenyan who foretold the end of the wild. The book is filled with insights of African elephants and antelope, and with portraits of a natural world inhabited by Bushmen, game wardens and scientists. Running through it is an outspoken and highly ethical regard for humankind's relationship with nature. From his first contact with Bushman rock art in the Western Cape, the author is drawn into a spiritual journey as he grapples with the quandary of balancing our lifestyles with protecting the environment. His travelling companion, Stu, a fellow scientist and arch cynic, is nettled by this lack of rationality. Marooned together in their 4×4, the friction, humour and hardship of their journey carry the reader across the continent from one adventure to another, to the final revelation atop an isolated kopje in the heart of the Serengeti Plains.

The Storm Leopard is a unique book that emanates from the author's passionate affair with nature and many years of experience in the field as an ecologist and consultant in conservation. Nothing deals with today's environmental issues in the same way.

THE COPPER BEECH TREE

The large copper beech occupying a beautiful vista in the heart of Darwin gardens has recently been undergoing tree surgery. Many of you visiting the gardens may have noticed the stark change in the size of the tree. The copper beech's heavier limbs and a large portion of the crown have been removed.

Investigations into the health of the tree began in 2007 after a large branch fell into the river, hitting a punt. Initial enquiries found extensive rot through the centre of the trunk, being made worse by the large load bearing limbs. For the last few years the tree has been monitored while difficult decisions have had to be made about its future.

In early 2011 a second survey into the tree was commissioned. The rot was now so extensive that surgery was unavoidable. A major concern was that in high winds the weight of the tree may overwhelm the soft rotten wood causing the tree to fall. At worst this could damage the college buildings or block the river.

The tree has now been extensively cut back so that the trunk is under less pressure. However this is only a temporary measure and the tree will eventually have to be removed altogether.

At the end of its lifespan there is still a little light in the future. Grafts of the tree have been taken in order to re-plant in the gardens at a later date. So, while the old beech may have gone, a part of it will still continue to grow in Darwin. One of the grafts taken may eventually be planted in place of the old tree, however other options are being considered. Another possibility may be to turn the trunk into a permanent sculpture in situ.

Whatever the future holds for the spot by the river, and the growing saplings, let's enjoy and appreciate the old copper beech while we are able, and celebrate what has been such a proud centrepiece to Darwin gardens for so many years.

Danielle Bradshaw
Photographs by Phillip Waterson

DARWIN COLLEGE SOCIETY

The alumni or 'Evolved Darwinians' of Darwin College have had another busy year attending events organised by the Darwin College Society (DCS) under our general theme of Local Heritage. We like to welcome the start of warmer weather with a trip to one of the many ancient natural history reserves surrounding Cambridge. In April 2010 we visited Hayley Wood, an ancient woodland recorded in the Domesday Book of 1068 and now owned and maintained by the local Wildlife Trust (WTBCN). Our guide and the wood's warden, Richard Dowsett, explained the history and helped us to explore the glorious wildlife of the wood, in particular the wonderful swathes of bluebells and oxlips. This year we visited Monks Wood in April, another very ancient wood and a site where an ash/oak wood has existed for at least 2000 years. Our guide Chris Gardiner from Natural England has made a special study of the history of Monks Wood as well as being very knowledgeable about it's natural history. So we were told of a series of owners and events with lots of Anglo-Saxon names amongst primroses, cowslips, bluebells, false oxlips and many features of the wood. On both occasions, the lunch in a local hostelry, the beauty and peace and quiet of a wood on a sunny afternoon and the convivial company was a joy to experience. In November 2011 we had a second wood trip, this time for a fully booked autumn Fungus Foray in Gamlingay Wood, another very old wood owned and maintained by the WTBCN. The long time warden Peter Walker led our trip with a wonderful grasp of both the natural history and the wood's history.

The artistic side of life was not forgotten as we visited Cambridge's Kettles Yard in May 2010 and had the pleasure both of the house and exhibition but also a wonderfully enthusiastic private talk and tour by the Director Michael Harrison (Senior Member of Darwin) before celebrating the day with an evening meal at the adjacent Thanh Binh Vietnamese Restaurant. Our first poetry event was organised in June 2010 visiting John Clare's house in Helpston, now a museum to his life. We had a talk, a tour of the house and museum in the morning, lunch in the Public House where he worked as a boy, then in the afternoon of a hot and sunny day, a tour of the village which has changed surprisingly little over the years. Many of us now understand why he seems to have a resurgence in fame lately and why he is named 'The People's Poet'.

The summer is normally devoid of DCS events but in 2010 we experimented with the idea of meeting at an outdoor theatre rather than making a block booking. So in August we met at Anglesey Abbey gardens for 'Much Ado About Nothing' performed by the touring Pantaloons. We repeated the experiment in 2011 with a visit to 'Alls Well That Ends Well' (Cambridge Shakespeare Festival) in Robinson College Gardens. More formally, our artistic heritage trip was to Kings College Chapel to see Verdi's Requiem in March 2011 performed by the Cambridge Philharmonic Orchestra and Choir together with the Amersfoot Choral Society. The combined choirs produced a never to be forgotten sound in the beautiful surroundings of the Chapel.

As befits the title 'Heritage Events', historical figures and collections were not ignored. In October 2010 we visited the Whipple Museum in Cambridge to have a talk and tour of their history of scientific instruments given by Ruth Horry and Claire Wallace. Then in November 2010 on an overcast day we left lunch to walk across Cambridge City Centre, successfully ascend (and descend) St John's Tower guided by Dr Drake to Magdalene College where we were treated to a private talk and browse of the Pepys Library. The word 'treated' is not used lightly here, as we listened to such an enthusiastic and informational person as Dr Luckett. His knowledge of Pepys and his family as well as the events surrounding his life was outstanding and every question was answered in the same fact-filled, enthusiastic way. In February 2011 we had a day in Huntingdon to learn about Oliver Cromwell. The day started with a

Hayley Wood event

talk in Huntingdon Library before we enjoyed lunch in The George, an old coaching inn, then a visit to Cromwell's house as a young boy, now the Cromwell Museum, with John Goldsmith the Museum Curator as our knowledgeable guide. Finally we finished a long day with a short walk to All Saints Church for it's connections with Cromwell and very kind provision of tea and biscuits. Charles Darwin was not ignored as in November 2011 we were guests of Christ's College for Catherine Twilley to show us the restored rooms where Darwin stayed as a student. Afterwards we had a simply absorbing talk by an extremely knowledgeable and enthusiastic Professor Jim Secord, Director of the Darwin Correspondence Project, on the Young Darwin before finishing at the Darwin Garden and bronze. Jim Secord joined us for lunch and just as knowledgably continued to discuss Darwin.

History and the outdoors combined to perfection twice in 2011. On a simply beautiful summer's day in June we visited the Botanic Gardens in Cambridge and were given a talk and tour by the then Acting Director Tim Upson including the garden history, Charles Darwin's part, the philosophy behind the organisation set up by Henslow and maintained today and Henslow's fascination with species variation built into the choice of plants. The trip opened the eyes of all of us, now seeing the plants and their arrangements in a totally different light. Our September trip to Flag Fen, the site of a Bronze Age settlement outside of Peterborough was made extra special by the enthusiasm and knowledge of its discoverer and leading archeologist Francis Pryor, author and expert on television's "Time Team", who painted such a picture of the people and land that it was a surprise to look up and see modern Peterborough in the distance.

These events together with the three College Dinners for alumni and the other college events such as the Old Darwinian Garden Party has made the society calendar a very busy one. The attendance of events has been good and is steadily increasing and the feeling of family increases all the time which you, the alumni, have made possible. Next year will continue in the same way so do look out for the email invitations and if you have not received any please contact Sophia Smith. We must acknowledge the wonderful guides and speakers we have been privileged to find to feed our minds and the wining and dining places who have fed our bodies, expecially Darwin College's own team. Finally our apologies, the college web site is in the middle of a large change so the DCS event reports posting has been, and will be, a little variable until it is settled.

Terry Moore

THE DARWIN FAMILY

The bicentenary of Charles Darwin's birth was celebrated in countless forms - lectures, TV, radio, film and even dance. Understandably, the majority of the coverage focussed on the man's scientific legacy, but what of his living legacy - his family? In this article, Paul Dunne introduces us to one of his sons- Francis Darwin, perhaps the man who did most to create the image we have of Charles today.

For me this history began where many illustrious others have ended, at the Ascension Burial Ground on Huntingdon Road. Amongst the graves of such notables as Ludwig Wittgenstein, Stanley Arthur Eddington and John Couch Adams, I came across a pair of beautifully engraved headstones marking the resting place of Francis, Horace and Ida Darwin. A little searching soon uncovered the links between Charles' offspring and Cambridge...

Upon his return from the Beagle voyage in 1836, Charles Darwin married his cousin, Emma Wedgwood, and set about producing the work which was to ensure his long-lasting fame. He also set about producing a substantial Darwin dynasty - ten children in total, of which seven survived to adulthood. Francis was the fifth child, and the son whose interests most closely matched those of his father. After obtaining a first class Natural Sciences degree from Trinity College, Cambridge, and a medical doctorate from St. George's in London, 'Frank' moved back to live near his parents to act as assistant to his aging father. In the greenhouses of Down House, and on visits to laboratories in Germany, Francis conducted groundbreaking work on the physiology of plants.

After Charles' death in 1882, his widow decided she would spend the summers at Down House, and the winters in Cambridge where she could be closer to her sons George, a fellow of Trinity whose house

Francis and family outside Wychfield

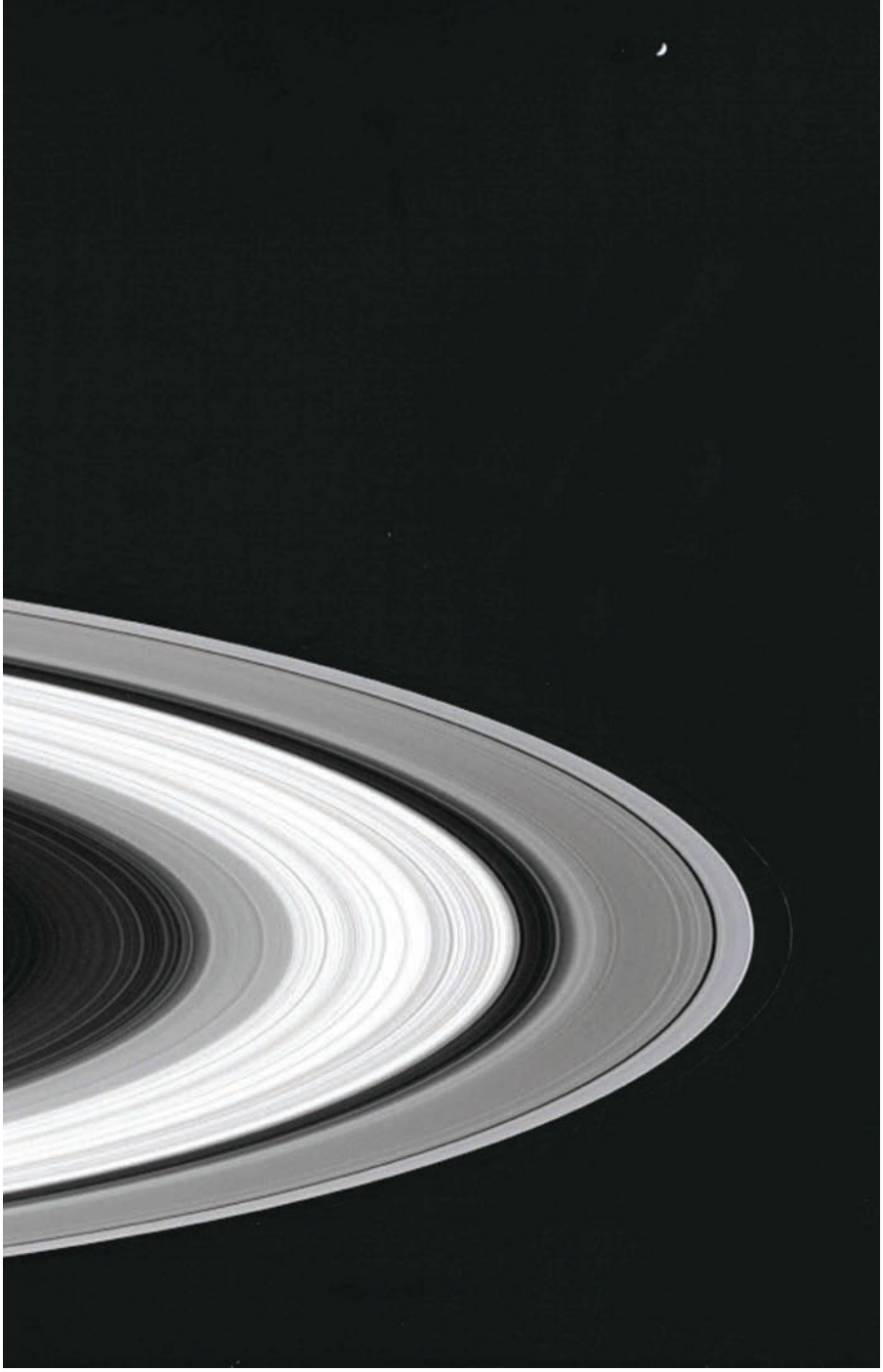
'Newnham Grange' now forms the basis of Darwin College, and Horace, the owner of the 'Cambridge Scientific Instruments' company based in the city. Emma bought a large property on Huntingdon Road known as 'The Grove', now part of Fitzwilliam College, because the mature gardens provided plenty of space for Horace to build a house. In the event it also provided plenty of land for the newly married Frank and his second wife Ellen Crofts, a great-granddaughter of Wordsworth, to build their house - Wychfield. By 1884 the house was complete, and Frank had found a new job in the Botany School, where he continued his work on plant physiology that would eventually lead to a knighthood. It was also at Wychfield House that Francis completed his 'Life and Letters of Charles Darwin', perhaps the book which did most to shape Charles' posthumous reputation.

It was here that Frank settled to raising his children, Bernard (born to Frank's first wife in 1876, who died from complications resulting from the delivery), and his daughter Frances, born in 1886. Frances' donkeys would roam between the houses under the trees, whilst the sports mad Bernard would hit golf balls about the garden, or compete with his sister to catch falling leaves from a giant beech tree. There were numerous cousins in Cambridge for the children to play with, including Gwen Raverat, who talks of the mischief they got up to in her book 'Period Piece'. A common site was for the family to entertain guests on wicker chairs outside the house, as in the photo, above, or for Ellen to sit gossiping with friends on the untidy veranda. Pursuits inside included the wholesome-sounding 'Picture Game' and 'The Poetry Game', the latter of which proved valuable training for the children - Bernard later became a writer for *The Times* and Frances Cornford *née* Darwin was a respected poet. It was said that Frank was 'the musician, the writer, the artist, in a family which might well have been called benevolently Philistine', and the house would have often echoed to the sound of Frank's bassoon or flute.

This happy existence came to an end in 1903 when Ellen died of a lingering heart condition, her last days spent lying on the veranda at Wychfield. The house, which was so tied up with her memories, was sold as quickly as possible, to John Chivers, a wealthy jam magnate from Histon. Trinity Hall acquired the house in the 1950s and the site began to grow into the form in which it is found today. After a brief stay in London Frank returned to Cambridge, where he married and out-survived a third wife before his own death in 1925. Visitors to Wychfield find no memorial to Sir Francis Darwin FRS - perhaps the beautiful gardens which first attracted Emma Darwin to the site serve as the most appropriate memorial of this kind, modest and generous man and his family.

26TH DARWIN COLLEGE LECTURE SERIES 2011

BEAUTY

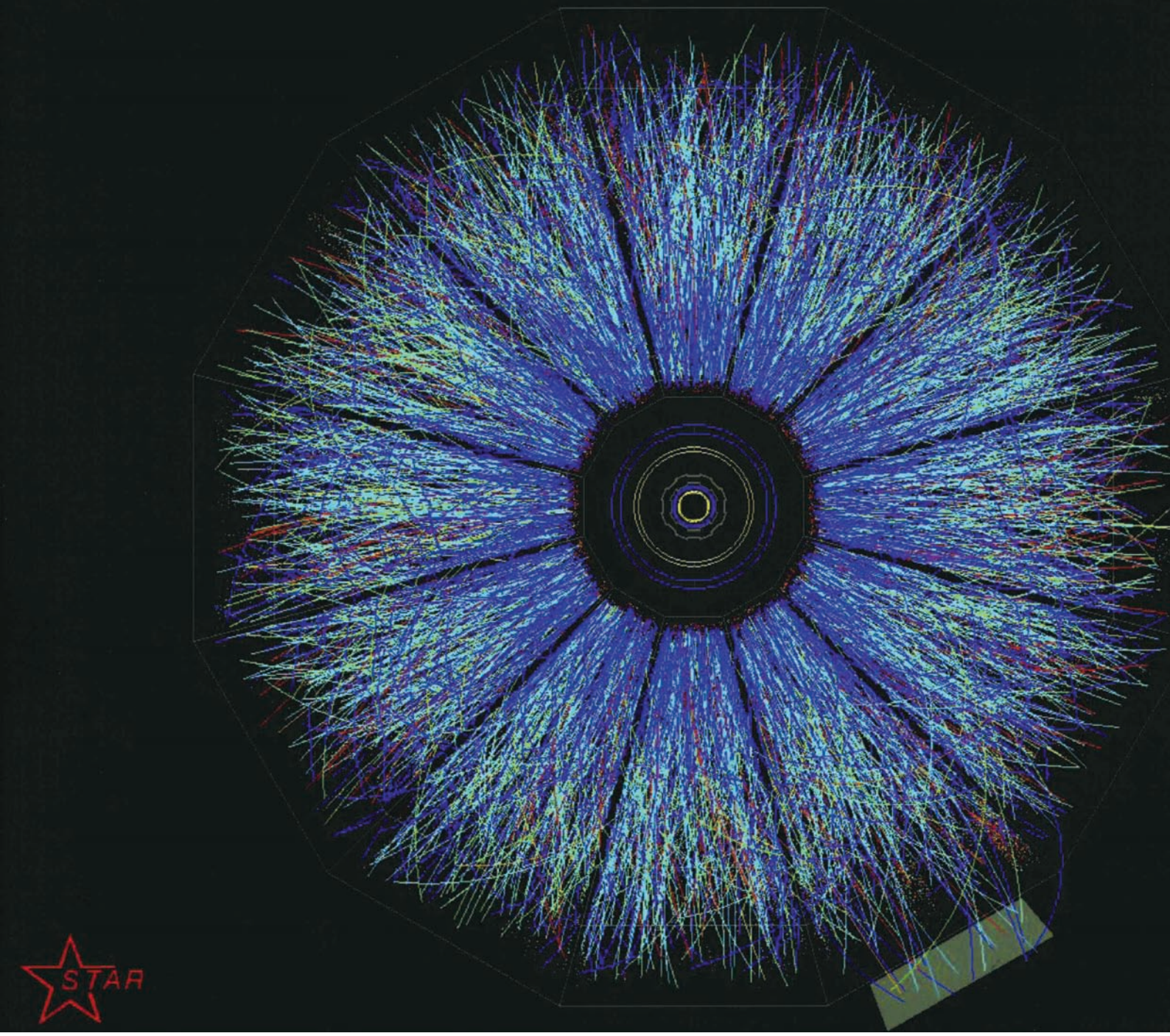


As befits a series with the theme of 'Beauty', Darwin's 2011 public lectures were accompanied by an exhibition in the College of illustrations from the talks. Paintings of baboons were flanked by images of medieval music, nuclear particle collisions and soviet architecture. There was also a 'Beauty Walk' around the Fitzwilliam Museum, featuring works selected by members of its staff. The uniting theme of the series, devised by Lauren Arrington, Zoe Leinhardt, Philip Dawid and Jessie Hohmans, was that of the paradoxical nature of beauty. Taking up this theme, the Spanish artist José Hernández explained the role of the grotesque in his own work. It was pursued further in Evgeny Dobrenko's vivid exploration of the use of art for persuasion and intimidation by the totalitarian political regimes of the mid-20th century.

An altogether more serene story came from Jason Kuo's account of the use of spontaneity in the brush strokes of classical Chinese painting. With both musical and visual illustrations, Elizabeth Leach gave a fascinating analysis of the tension between the sacred and profane in 14th century church music. In what was definitely the spirit of the profane, the primatologist Jeanne Altmann revealed what baboons find attractive in each other, confirming that beauty lies in the eye of the beholder. Both the conceptual and visual beauty of mathematical ideas were discussed by Robert May. This was taken further by Nobel laureate Frank Wilczek's pellucid account of the way that the search for beauty in simplicity has guided the development of physics. The series ended with Carolin Crawford giving an engrossing scientific explanation of the fantastic and beautiful structures of inter-stellar nebulae. The College is once again deeply grateful for the generosity of Richard and Ann King which helps maintain these very popular lectures as an established part of Cambridge life.

In other Lecture Series news:

The **2012 Darwin Lecture Series**, on the subject of LIFE, are currently underway. Do come along to listen



Friday 5.30pm (20th January – 9th March), Lady Mitchell Hall, Sidgwick Site, Cambridge. Arrive early to ensure you get a seat!

The list of lectures can be found at: **www.darwin.cam.ac.uk/lectures**

The **2010 Darwin Lecture series**, on the subject of RISK, is now available in book form published by Cambridge University Press, edited by Darwin fellows Layla Skinns, Michael Scott and Tony Cox. One of the contributors, Bob Watson, was knighted in the New Year's Honours List 2012. Many congratulations to Bob!

ABOVE LEFT: Rings from Afar -

Taken by the Cassini-Huygens satellite a cooperative project of NASA, the European Space Agency and the Italian Space Agency

Even from afar, Cassini's cameras reveal a tremendous amount of detail in the planet's rings. The punctuated detail in the C ring, the bright fine structure in the B ring, the dark bands within the Cassini Division, the bland nature of the outermost A ring, as well as knots in the twisted F ring, are all visible. The moon Tethys (1.062 kilometers, 660 miles across) hovers beyond the rings at top.

This image was taken from beneath the ringplane in visible green light with the wide angle camera on November 1, 2004 from a distance of approximately 2.2 million kilometres (1.4 million miles) from Saturn. The image scale is 129 kilometers (80 miles) per pixel. This image has been slightly contrast-enhanced to aid visibility.

ABOVE RIGHT: Full Energy -
Permission to reproduce the image was given by Brookhaven National Laboratory

An end-on view of one of the first full-energy collisions between gold ions at Brookhaven Lab's Relativistic Heavy Ion Collider (RHIC), as captured by the Solenoidal Tracker (STAR) at RHIC detector. The collisions create a quark-gluon soup that reproduces the state of the universe less than 10 microseconds after the Big Bang. The tracks indicate paths taken by thousands of subatomic particles produced in the collisions as they pass through STAR's 3-D digital camera.

NEWS FROM THE DCSA

As students arrive back from the winter break we're gearing up for what tends to be the busiest term, with Burns night, bops and quiz nights on the calendar, planning for this year's Darwin-Wolfson Sports Day, and the new punting season on the horizon, as well as an ever-growing stock of 'traditions' to keep up with. The May Ball committee are getting down to work now, and will be keeping the theme of this year's event top-secret (just as soon as they decide what it is) until the official May Ball Launch Bop later in Lent term.

The Green committee, led by the DCSA Green Officer, is very active: they have been running a series of 'swap shops' where Darwinians can pass on unwanted items and pick up useful bits and pieces, (like the mug I am drinking tea with as I type!). A similar project with abandoned bikes proved very popular. Anyone visiting the garden behind Newnham terrace will have also noticed interesting things happening: the Green committee have been successfully running the Darwin allotment scheme for the past year, and our old punt, the Iguana, has been given a second career as a rather large plant pot. I understand the tomatoes were good last summer.

Sports clubs, (including a new field hockey club), yoga and film clubs, capoeira and salsa have been meeting throughout the year; the music society has been running its regular jam sessions, and a fledgling choir has begun to meet again. The cricket team has been doing very well, coming second in the MCR Cricket League in 2010, and taking the trophy in 2009 and 2011. Best of luck to them this year! With so many events, exams and deadlines, we have a lot to prepare for this spring – looking forward to a successful and exciting 2012 for Darwinians!

Hannah Scally
President, DCSA

Calendar of Alumni Events

2012

Friday 16th March
'Darwin Society Dinner'

Friday 11th May
'Darwin Society Dinner'

Friday 18th May
'Reunion Dinner 1972-85 and 1995-2005'

Saturday 9th June
Darwin College Society Visit to Down House

Tuesday 26th June
'Academy of Ancient Music - The Age of French Baroque' West Road Concert Hall

Friday 13th July
'Old Darwinian's Garden Party'

Editors:
Michael Scott, Sophia Smith, Danielle Bradshaw

The editors especially welcome short articles, pictures, artwork and news from our overseas alumni.

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