



**PHOENIX**  
2013

## 36 PAGE PULLOUT

THE ARTS ANNUAL OF IMPERIAL COLLEGE LONDON RETURNS INSIDE THIS ISSUE

### Election results to be announced

**Tim Arbabzadah** Editor-in-Chief

Voting closes in the Summer Elections at 10am today. The turnout looks like it will be lower than the Big Elections turnout was earlier this year. Campaigning has been much less visible, as is usually the case. Currently, at time of going to print, turnout is below 10%. The results will be announced on Friday by Imperial College Union at roughly 12:30pm. This is assuming that no serious complaints are made.

There will be a report online with all of the results at felixonline.co.uk/news/3662/summer-election-results-announced/ once they are confirmed.

### Imperial climbs league table

**Eoghan J Totten** Reporter

A lacklustre performance in the NSS (National Student Survey) left Imperial College London trailing behind the University of Oxford and the University of Cambridge, the other two thirds of the 'Big Three' UK-based academic institutions, in the latest league table compiled by the *Guardian*. A score of 64 fell short of Cambridge's 75 and Oxford's 71 respectively. In fact, a host of other academic institutions surpassed the College, ranging from the London School of Economics through to the University of Surrey. The findings are anticipated to irritate many staff and students within the College and may raise questions over the validity of league tables in general. Although, overall, Imperial did climb from 13th to 9th place.

Imperial College London is first and foremost a scientific institution and would always say that it is deeply en-

Rank 2014	2010	2012	Institution	Average Teaching Score	NSS Teaching (%)	NSS Overall (%)	Spending per student /10	Student staff ratio	Career prospects (%)	Value added score/10	Entry Tariff	NSS Feedback (%)
1	1	1	Cambridge	100	92	91	9.7	11.6	81	6.5	610	75
2	2	2	Oxford	98.2	95	91	9.7	11.1	76	7.3	563	71
3	4	3	London School of Economics	99.7	94	87	8.2	11.1	82	6.2	542	73
4	3	4	St Andrews	99.2	91	88	7.9	12.6	74	7.1	511	62
5	6	5	UCL	95.5	88	84	6	10	82	6.2	512	73
6	7	8	Durham	92.0	90	90	6.4	15.1	76	6.5	481	69
7	9	14	Sheff	82	92	92	6.7	16.6	75	6.7	416	73
8	12	19	Surrey	81.1	90	91	7.8	16.6	66	6.7	567	64
9	13	10	Imperial College	80.6	86	87	8.3	11.7	84	6.7	306	63
10	5	9	Warwick	80.2	87	85	6.6	14.3	74	4.7	439	73
11	7	7	Lancaster	80	89	89	6.7	18.7	72	6.7	410	74
12	10	11	Exeter	76.1	93	91	6	12.9	89	5.3	413	76
13	10	17	Lancaster	77.5	90	90	7.9	12.9	89	5.3	413	76

trenched in instilling rigour into its students from the outset. With current global dynamism and expansionism, problem solving skills are indispen-

sable when job hunting. This, fortunately for students at Imperial, was reflected in the league tables. Im- >>4

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TEDxAlbortopolis

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#### COMMENT



The tale of marking your lab report >> 6

### ARTS WOMEN IN ART



Special features. Pages 8-11

### Re-mark for the grading system?

Union Council discusses the GPA

**Maciej Matuszewski** Reporter

The Union is considering its response to plans by certain members of the Russell Group of elite universities to replace the current degree classification system with a US style grade point average (GPA). The system would involve students being assigned one of 14 letter grades, running from F- to A+, for each piece of assessment. These would each have a numerical value – or grade point – running from 0.00 to 4.25, with a student's final mark being a weighted average of these grade points.

The group of universities – >>3



Moving over to a US-like system?

#### COFFEE BREAK



Another exam for you to take >>25



# EDITOR'S PICKS

## SCIENCE

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### Fearless people

There are some people who have no fear. That's a really strange thought. This week, Science Editor Laurence Pope explores the possibilities of being fearless.

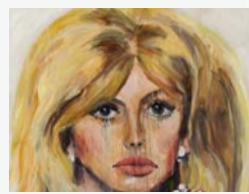


## ARTS

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### Women in art

A special four pages of Arts this week. An amazing, in depth, interview with an artist about beauty and its perceptions is a highlight.



## PHOENIX

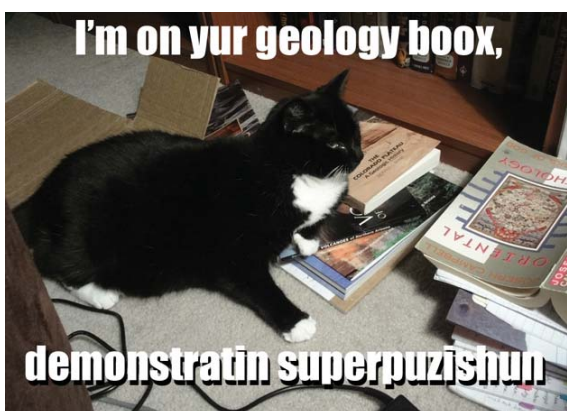
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### Rising once again

Well here it is. Back once more is the explosion of artistic talent at Imperial. 36 pages of writing, painting, and interviews in this year's arts annual.



**LOLCATZ OF TEH WEEK: Finding these is a perk of the job**



## Oh Gee a Point Average

Tim Arbabzadah  
Editor-in-Chief



**A** while ago some universities announced the possibility of using a UK GPA instead of the traditional grading system that we use. This is an interesting idea, and one that is worthy of debate. The College will at some point ultimately have to choose whether or not they switch. Imperial are a cautious lot: College tend to wait until something is tried and tested rather than dive straight in. Maybe it's the scientist mind set. Of course, this is both good and bad – it depends on the situation and context. Here, it will just give more time to mull over the idea. If many other UK universities switch, Imperial will start having serious discussions. If this ever does become a big topic, the upper management of College would be wise to consult with students and staff. The forgotten victims of examinations are often the lecturers and PhD students that have to mark the papers. It's unlikely they will be keen to support a proposal that makes each piece of assessment critical and therefore puts them under a lot of extra strain.

In essence, I think the current system is fine as it is. It allows people to give exact marks if they want and employers to ask for exact scores if they are so inclined. That little buffer in the current system is great for markers, students, and employers. You'll always have the

grey area of overlap where 59 and 61 aren't too different from each other – but that is fixable by someone saying on a CV that they were that close. It does cause a problem if you are not allowed to apply for a job unless you have a 2:1, but a GPA doesn't fix that really.

Interestingly, the GPA will essentially break up the grades into smaller sub grades. It's like if you had low 2:1, mid 2:1 and high 2:1 on the degree instead of just 2:1.

So, will employers start asking for higher grades? Probably not. If they wanted to, they could already say that nobody with less than a first or 65% should apply (and check transcripts to see if people lie). If they ask for a grade it will be the same range as before, just under a different name. They will want rounded people with loads of interests and who fit into their ethos and all that other stuff.

Employers understand that wiggle room is needed, as grades are not 100% spot on. Bad day in the exam hall and that could be a knock to your average; labs are marked by humans who may make mistakes or be a bit erratic in marking (in a standard human way), and so on and so forth. It boils down to the fact that marking is not as exact as you wish it would be. Employers went to university themselves (that person interviewing you was a student once)

and so know all of this. If they do not understand, then universities should inform them.

Will people start getting tactical with options? Hell yes, but they do that already. Only those that truly love their subject chose options based on interest, the rest just go with what's the 'easiest' option. There is also the danger of grade inflation. With people aiming for what used to be a high 2:1 there is a temptation for universities to keep students happy and to rise up the league tables by giving out higher grades. Of course with a system like this people will be more stressed out and worried. They will want to get certain grades that have smaller margins of error. This gets circular in a way: again, you have the issue of someone having e.g. 63% and 65% possibly getting a different classification. Just like before the lines are blurry, but now there's a bigger blur to sharp ratio. This is why, in all likelihood, employers will still want the 2:1 equivalent and above. They need to draw a line somewhere, why change that line's position for no real reason? You possibly get people who are 3% 'better', but is that really 'better' at the job you will give them? More motivated? Better at working in a team? Some other business jargon? Nope. That's why you interview them and look at their cover letter, CV, and experience.

**THIS WEEK FELIX WAS BROUGHT TO YOU BY**

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# NEWS

## Resolves at next meeting

» continued from the front page

which includes King's College London, UCL and Manchester but not Imperial – first made their intentions public in an article in Times Higher Education in June 2011. The main reason given for wanting the change is to help allow the British system to be more easily understood by foreign employers. The current practice of awarding students firsts, 2:1s, 2:2s and thirds was only fully implemented after World War I and is not widely used outside of the UK.

The universities also argue that the new grade system would be fairer and provide potential employers more information than the broad categories presently used. For example, under the current system two students might earn final percentages of 59.0% and 60.1% and yet be awarded the very different classifications of 2:2 and 2:1 respectively. A grade point average would also encourage students in the final year to work hard regardless of whether their marks so far are within what would have previously been a boundary for a particular classification.

Potential concerns, however, have also been identified. The GPA might lead to a greater focus on grades as opposed to learning the subject – possibly leading to grade inflation and students choosing easier modules to get higher grades. This is the main reason why the London School of Economics opposes the changes. The lack of information given by the current broad categories is also already alleviated by employers being able to ask graduates for their academic transcripts or a breakdown of their module marks. It might therefore not be worth the administrative cost of introducing a completely new system.

The group of universities supporting the changes said, in a statement released in September 2012, that they were merely “seeking a measure that



Harvard University, in Cambridge, Massachusetts. Wonder which UK university they are copying

can be a motivational tool for students during their university study and give employers and others the information they need following graduation.” They added that they believed that “there are aspects to academic practice in the UK, including marking culture, second marking, marking criteria, and external examination, which can indeed help to counteract some of the concerns about the US experience of GPA.”

While employers groups, such as the Association of Graduate Recruiters, have expressed cautious support of the changes reactions from Imperial students and academics have been more ambivalent. Jonathan London, Physics Departmental Representative, told Felix that he believed that “we have a system which works, so we should focus our time and money on pressing issues”. An Imperial College academic, who wishes to remain anonymous, said: “This seems to be change for change’s sake with little benefit to anyone. It will give a false impression of precision beyond the 4 classes of degree we have now, and that doesn’t help graduates or em-

ployers. And after all is done many employers will still reasonably understand that a 2:1 from Imperial is at least as good as a first in the same subject from non-name-city new-university.” Another student, who did not wish to be named, seemed to think it was not really much different: “It’s just a different way of showing your performance, it won’t make you a better or worse student. Besides, we can look at our overall weighted percentage through the registry, which is way more divided than with a GPA.”

The issue was discussed at the last meeting of the Union Council and will be considered further at the next meeting. Deputy President (Education) Doug Hunt said that he “will be writing another paper for council next week, which will have resolves and beliefs in it, as [he doesn’t] want to influence Council’s decision in anyway and want it to be students’ voice not [his].” The next Council meeting will be at 18:30 on June 11 in the Union Dining Hall. All students are welcome to attend and voice their opinion.

» Editorial: page 2

## \$5000 essay prize for Imperial MBA student

Nida Mahmud News Editor

Mike Follett, a MBA student at the Business School has been awarded the first place award for an advertising competition, *ADMAP* prize 2013 for his essay. The essay was entitled “Thinking in 3D”. Mike will receive the Gold award and a cheque for \$5,000 at the *ADMAP* Prize celebration event on June 19th at the Cannes Lions International Festival.

*ADMAP* is a magazine that is released monthly, it is written by expert practitioners on advertising and com-

munications innovations. Contestants for the *ADMAP* prize were required to write an essay answering “Can brands maximise profits and be a force for social good?”

The essay will be published in the *ADMAP* June issue. The essay concluded with: “Business could be more profitable and a force for social good if they

combined their objectives together rather than focus on just making profit.”

Follett, who worked in advertising for ten years before coming to do an MBA at Imperial, said: “If I had just carried on working as I was before, I would’ve given a very different answer than I gave after business school.” He went on to say: “Business school sort of fills in the gap of whatever expertise you have built up in your career.

It also gives you a chance to take a look at what you already know and how you view the world.”



## Energia Fitness fun day next week

Free fitness classes will be held on the Energia Fitness Fun Day, which is on Wednesday 19 June, in Ethos. The Active Lifestyle Team is bringing the day to students and staff and you do not need to be a member of Ethos to take part.

There will be special guests, such as “a mystery, world renowned Les Mills studio instructor” teaching a Body Pump class. Other special classes include Tai Chi on Prince’s Gardens and salsa dancing.

To book a place in one of the studio classes, call Ethos on 020 7594 6660. For outdoor classes, you just need to turn up five minutes before the class starts. Pre-booking is recommended, as spaces are limited, especially for the

### Imperial College London

Explore the fun of fitness this summer!

The Active Lifestyles Team would like to invite all Imperial staff and students to a fun day of free classes and outdoor fitness training. The event will be held at various venues across the South Kensington Campus.

ENERGIA  
FITNESS  
FUN DAY  
Wednesday  
19 June  
2013

Morning	Circuits	Gym
07.00 - 08.00	HARDCore Triathlete	Energia Studio
07.15 - 08.15	Yoga	Energia Studio
10.30 - 11.30		

Lunchtime	Fast classes run every 30 minutes at the Energia Gym	Energia Studio
12.00 - 14.00	Legs, Bums and Tums	Meet at Ethos Reception
12.00 - 12.45	Power Walk	Queen’s Lawn
12.00 - 13.00	Boxing Fit	Prince’s Garden
12.00 - 12.45	Tai Chi	Energia Studio
13.00 - 14.00	Body Pump*	
13.00 - 14.00		

\* Run by mystery, world-renowned Studio Instructor

A mega gym challenge will be held at Ethos throughout the day with prizes to be won! Free t-shirts for attendees will be given out on a first-come, first-served basis. Book studio classes at Ethos Reception or via telephone on 020 7594 6660. No booking is needed for all outdoor activities, just turn up 5 minutes in advance. EVERYONE is welcome, so come and join us for some fitness fun!

For more information, contact [activelifestyles@imperial.ac.uk](mailto:activelifestyles@imperial.ac.uk)  
[www.imperial.ac.uk/sports](http://www.imperial.ac.uk/sports) [/sportimperial](https://www.facebook.com/sportimperial)

### Sponsored Editorial

## More student cuts Discount haircuts for Imperial students at Fresh Hairdressers near South Kensington

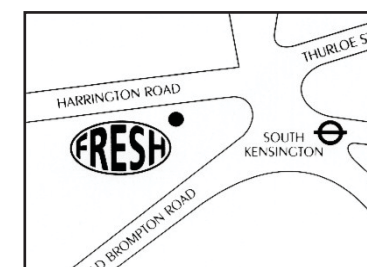
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# NEWS

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## RCC Awards announced

**Tim Arbabzadah** Editor-in-Chief

The RCC have announced the winners of their awards. The RCC Club of the year was Caving. There was also a Fellowship for Alistair Cott.

Four students got Distinguished Service Awards. They were: Matthew Lees (Mountaineering), Timothy Run-corn (Ice Hockey) Antoine Desmet (Wakeboarding) Dominic-Andradi Brown (Underwater).

The following students received Colours: Thomas Wheeler (Exploration), Leon Vanstone (Kite Surfing), Thomas Arscott (Gliding), Harish Santhanam (First Aid [LINKS]), Zhao Ming Tai (First Aid [LINKS]), Ruth Lawson (Mountaineering), Samuel Flynn (Gam-



ing), Michelle Low (Mahjong).

The following received a Merit award: Joel Braganza-Mendes (Mountaineering), Tim Barrett (Night-Hike), Valentin Sauter (Fellwanderers), Claire Guitton (Fellwanderers), Egor Kyshtymov (Gliding), Richard Cameron (Underwater), Rhys Tyers (Caving), Johannes Hoenigl (Pilots), Jennifer Norris (Dance), Delphine Rolando (Synchronized Swimming), Ryan Perkins (Outdoor).

# Cambridge still on top



» continued from the front page

perial exhibited a job prospect score of 84, superseding all competition (the London School of Economics was close at hand with a score of 82; being within walking distance of the city, a global financial powerhouse has its benefits). The pitfall seems to be the road that a student must travel in order to obtain an Imperial degree. Many an unsavoury moment of staring at a blank page must be endured. Given that each and every student here at Imperial College has to experience this on a recurrent basis, this might rationalise depleted student satisfaction.

Numerous other scores inhibited the overall score of the College, including expenditure per student head and a meagre "Value added" score of 6.7/10 (versus University of St. Andrews' leading 8/10). This arguably is where scepticism begins to creep in among staff and students at the College; the score takes people's grades before and after university and sees if the university has 'added value' by improving the student's academic abilities. This has become a hot topic of debate before, with many students arguing it could lead to grade inflation by universities. This would raise the score by it looking as if the university had made the students perform better in assessments. The general use of satisfaction by students has been controversial as to how accurate it is at measuring how good a

university is.

Inspection of endowment does bring some surprising results. As of July 2012 the endowment of Imperial College London was in the region of £79 million. Contrast this with Oxford's £3.7 billion endowment, viable of bailing out a small European Union state. Compare this furthermore with Harvard University's \$30.4 billion endowment (around £20 billion). It becomes apparent that Imperial College London is punching above its weight, producing world class students and research on a budget comparable to the spare change in the pockets of some other academic institutions. Couple this with the ability of the College to attract a multitude of highly-skilled students from overseas and perhaps the fortunes of Imperial are not all doom and gloom.

The league table by the *Guardian* makes student satisfaction the centrepiece of the academic dinner table. It would appear, from surveys for other league tables (by the *Times Higher Education Supplement*), that students think that the fault of many Departments within the College is to suffocate students with a massive academic workload.

Interestingly, the "Entry Tariff" for Imperial was the third highest in the country. This is the UCAS points score that students at the university achieve. Above Imperial are Cambridge and Oxford.

The *Guardian* also released their individual subject tables, showing what university it considers the best for various subjects. The fortunes of the different subjects were extremely mixed. Some doing extremely poorly, and some coming out on top. Earth and Marine Sciences was rated number one in the country, with 94% of students being in a career after six months. Mechanical Engineering was also top, with an average entry tariff that stood head and shoulders above the rest.

Civil Engineering took second place, behind UCL's equivalent. EEE, General Engineering (this specific course is not offered at Imperial and so this is likely to be an amalgamation of the engineering subjects), Materials, and Chemical Engineering all came third. Physics came fifth, with the percentage of students satisfied with the feedback (64%) being the main distinguishing factor between Imperial and the other courses. Feedback again hit Mathematics, who were seventh. Medicine came in ninth and had the lowest score of all the courses for feedback – with only 47% saying they were happy. Although this was better than King's College London, who managed to score an impressively poor 18%. Chemistry and Biosciences were the two worst performing at Imperial. Chemistry were in 12th, with satisfaction with teaching, feedback, and the course seemingly dragging down the rating. Biosciences performed the worst by quite a margin: they came 25th in the subject table. Again it appeared to be satisfaction that caused the problems.

The *Guardian* league tables are published yearly. Research performed by economists at Royal Holloway found that improving a Department's overall score in the *Guardian's* league table was linked with an increase in applications. Studying the UCAS data and the league tables published by the *Guardian* from 2004 onwards showed that an increase in the overall score by one standard deviation saw an average 4.8% increase in applications. This only applied to Departments at the top of the table. The authors of the paper said: "Universities cannot afford to neglect their performance on league tables so long as they wish to establish and maintain a consistent reputation to attract the best of students."

Statistics can be found at: <http://www.guardian.co.uk/education/table/2013/jun/03/university-league-table-2014>

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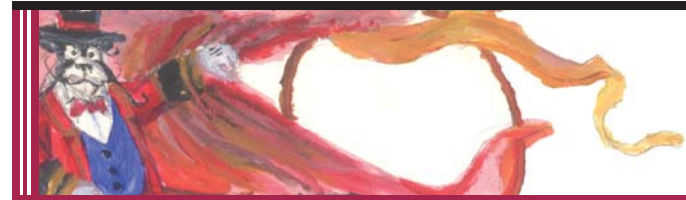
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for the art  
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for the fun  
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# FEATURES

# Best position? On Albertopolis

**Tim Arbabzadah** talks to ex-Imperial student and TEDx organiser **Kadhim Shubber** about organising TEDxAlbertopolis

**T**EDxImperialCollege was a must see event. It had so much on offer (you even got your own lanyard) and must have hit home with the audience: it was trending on Twitter. Considering it contained absolutely zero **Justin Bieber** performances, that's pretty special. Former Felix Editor/physics student Kadhim Shubber kindly took some time out to answer some questions. He is co-organising possibly one of the largest ever TEDx events, right on our doorsteps at the Royal Albert Hall. The team organising TEDxAlbertopolis is almost entirely made up of Imperial alumni, and Kadhim described them as "a dream. The most intelligent, interesting and effective people you could hope to work with."

**Tim Arbabzadah: You organised TEDxImperialCollege, what made you want to organise another TEDx event?**

**Kadhim Shubber:** We had far more people who wanted to attend TEDx-ImperialCollege than we could accommodate. There was such a huge demand in this community for another TEDx event and we felt that there was more to say, and more stories to explore in this area.

**TA: If there were anything you could have done differently at the last event, what would it have been?**

**KS:** When you organise an event, you are in a unique position to see all the niggles and flaws. There are lots of things that I thought could have been a little bit better, but on the whole I think it was a great event that people enjoyed and I wouldn't want to point to one thing or another.

**TA: The Royal Albert Hall is the venue, how did that idea come about?**

**KS:** The Royal Albert Hall is Albertopolis' auditorium. Its full name is the "Royal Albert Hall of Arts and Sciences", making it the perfect place to explore the Arts, Sciences and their role in modern society. We are incredibly lucky to be able to organise TEDxAlbertopolis at the Royal Albert Hall.

**TA: Is this the biggest ever TEDx event?**

**KS:** I don't know, but I haven't heard of any that are bigger. TEDx events are about spreading ideas and connecting people. The size isn't hugely important. **TA: It's TEDxAlbertopolis. What is**

**Albertopolis?**

**KS:** Albertopolis is the informal name for the area from the Royal Albert Hall down to South Kensington station, including all the museums and other institutions in this neighbourhood. It's basically a Victorian "Tech City", founded on the profits of The Great Exhibition of 1851 as a place where scientific innovation and creative design work hand in hand.

**TA: What is the theme of this year's event?**

**KS:** We aren't giving away the theme just yet, but it's no secret that we'll focus on the place how art and science fit together in the modern world.

**TA: Are there any big name speakers we will get to see?**

**KS:** We've chosen all of our speakers because we think they have a really interesting perspective to share and a compelling story to tell. We've got many more to announce, but we've already announced Dame Sally Davies, the Chief Medical Officer for

England and Emeritus Professor at Imperial; David Braben FREng, CEO of the Frontier Developments and a cofounder of the Raspberry Pi Foundation; Nicholas McCarthy, the first one-handed pianist graduate from the Royal College of Music; and John Halpern, cryptic crossword setter for *The Guardian*, *The Times*, *The Financial Times* and *The Telegraph*.

**TA: Who would be your dream speaker to invite?**

**KS:** I feel incredibly privileged to be working with the speakers we've already been able to announce. I think this is pretty much a dream line-up. (I hope you agree!)

*TEDxAlbertopolis is on the 23rd September, tickets can be bought by going to [royalalberthall.com](http://royalalberthall.com). Find out more at [TEDxAlbertopolis.com](http://TEDxAlbertopolis.com)*

## A Great Exhibition

With all the attention focusing on the Royal Albert Hall's starring role in TEDxAlbertopolis, it's worth returning to the humble beginnings leading up to this event. Held on the 24th of March in the distinct environs of the Great Hall, TEDxImperialCollege invited a range of speakers to deliver lectures on the theme of the Great Exhibition of 1851. Topics of the day included instant spray-on fabric and a project to resurrect the world's first modern computer, with the subjects proving wholly memorable – for the world and not just for those attending with some of these talks reaching thousands via the modern day magic of YouTube.

I was lucky enough to be seated on the reputable Social Media Sofa at the back of the auditorium, providing just about the best view of the action going on below. Live blogging proved a just about surmountable challenge, with the sheer number of eminently quotable ideas and concepts from eminently quotable individuals arriving like a swarm of commuters at a busy station, clashing at the ticket barrier of my live update system.

I'm under the distinct impression that even more can be expected from the upcoming event at the Royal Albert Hall. And though obviously things won't be the same without the Social Media Sofa in the back, I'm sure that the range of speakers and incredible location will lead this to be an event that will inspire an incredible amount of attention; not least plenty of trending on Twitter.

**Matt Colvin**



### Job Description

Sondrel is looking for new or recent graduates who are interested in pursuing a career in microelectronics. The current roles will provide the candidates with training from some of Sondrel's highly skilled engineers in a variety of disciplines across IC design. Not only will the roles be technically challenging as Sondrel engineers work on some of the largest designs in the latest technologies, but they will provide experience of working alongside some of the best engineers in the industry and throughout the world.

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# COMMENT

Comment Editors: George Barnett,  
Navid Nabijou, James Simpson  
comment.felix@imperial.ac.uk



# The Tale of the Demonstrator

**Pietro Aronica** gives a – mostly fictional – parody of the precise and hallowed science of marking lab reports

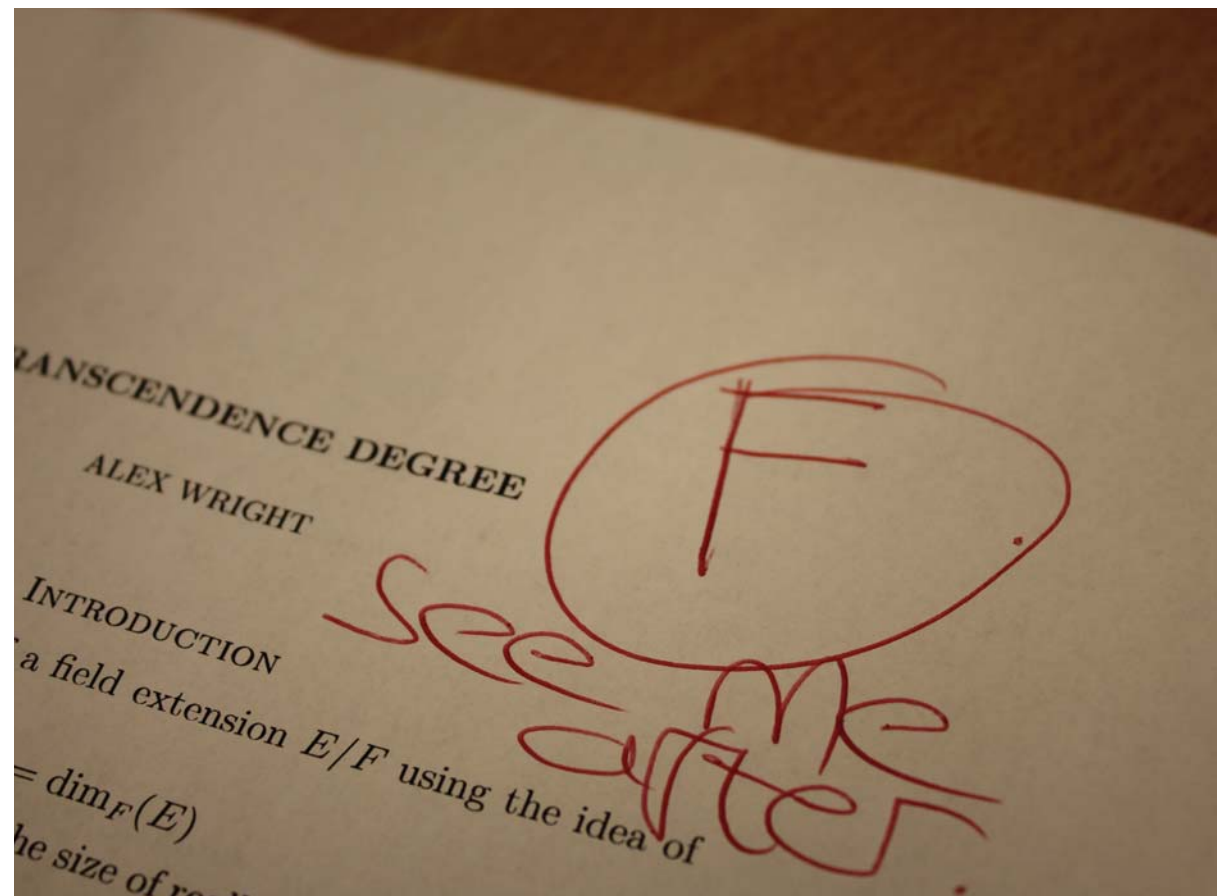


Pietro Aronica

**T**he demonstrator, working late at night, still has a stack of papers to correct for the following day. Though the bed beckons to him, he relentlessly keeps going, as students require his slightly-above-minimum wage insights and comments: without his feedback, they would have literally no other way to improve their marks. Or so he tells himself, correcting for the umpteenth time that night that the plural of “momentum” is not “momentums”.

He picks up his reference text to check if a value is the right one: not the official answer outline, dated and imprecise, but the report of a particularly brilliant student. It has equations and sources that the demonstrator does not even know of, and someone writing such things clearly knows what they’re doing. He had felt compelled to give it the maximum marks, sincerely hoping that he hadn’t rewarded plagiarism.

In comparing the two reports, he goes down the mandatory checklist. Background theory? Convoluted, but check. Figure explaining that one effect? Check. Equation for said effect? Check. Description of the experiment? Incomplete, but check. Discussion of the experiment? It’s wrong, but, hey, at least it’s there. The result is one of those reports clearly slapped together two hours before the deadline, competent enough to show that



the work was (somewhat) done and understood, and transparent in its I-just-did-this-because-I-had-to spirit. This kind of report can get more or less any mark, depending on how anal you want to be about the precise us-

age of commas and subscripts, far beyond the demonstrator’s willingness to judge. He picks up a book, flicks to a random page and reads the first number he sees: it is odd. B it is then for this report. He pens a 64 at the bottom, and another one is done.

The next report appears to be marginally more competently written. There are definitely a lot fewer typos, and there is at least a rudimentary notion of how a table should be made. But before he can correct it, the demonstrator has to perform a fundamental step: he searches her name on Facebook. He remembers her from the lab, she was the one that had asked him that question he couldn’t answer. Well, this’ll teach you to shame me in front of everyone! He scours the report, finds a number with only three significant figures, and writes “insufficient precision” in the comments section. He gives it 55, a minute later amended to 60 because he feels guilty, and he goes on to the next one.

This reports starts awfully, with a terrible, rambling introduction, and for a moment the demonstrator gets excited. His enthusiasm rises through blurry images and poorly formatted paragraphs, but unfortunately the discussion of the experiment is impeccable, and he cannot give it any

less than a B. Just once, the demonstrator wishes there were a truly disastrous report so that he could take out his red pen and write a big F on it. “See me”, he could even write. But there was no report that ever really deserved that, and even those with obvious flaws had some redeeming feature. Reluctantly, he gives it a 69, giggles to himself, and then puts it away.

He takes another one, and it is a good one: correct use of references, proper discussion and interpretation and all the rest. Unfortunately for the student, the demonstrator has run out of As to give today. He wouldn’t want to seem too generous, especially when the other demonstrators are boasting about failing people left and right, and he has instituted a quota. He feels sorry for the kid, especially as he’s recognised him as one of the quiet ones, but going back to change the other marks would be entirely too much effort. He gives it a 68 before taking another report.

The pile is still large, and the hour is only getting later. It is hard to be a demonstrator.

*This is (mostly) a work of fiction. No grade averages were harmed in the making of this.*

“He picks up a book, flicks to a random page and reads the first number he sees: it is odd. B it is then for this report”







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# SCIENCE

# Flicking off the fear switch

**Laurence Pope** Science Editor

“You asked me once, what was in Room 101. I told you that you knew the answer already. Everyone knows it. The thing that is in Room 101 is the worst thing in the world.”

Room 101: a setting from Orwell’s *Nineteen Eighty-Four*, the room where everyone’s worst fear is contained. For the protagonist Winston Smith it was rats. For others it might be as sensible as snakes, or as bizarre as flowers. Say what you will, but everyone has some sort of fear.

Or do they? In the United States a woman, known only as S.M., has Urbach-Wiethe (UW) disease, an incredibly rare genetic disorder with only 300 or so cases recorded in medical literature. One of the symptoms in UW disease is the destruction of the amygdalae, almond-shaped groups of nuclei embedded within the brain.

The main impact of this destruction

is the complete absence of fear within patient S.M. A group of scientists attempted to scare her with, amongst other things, poisonous snakes and arachnids, horror films and haunted houses. Long story short they failed miserably. They couldn’t perturb S.M. Only recently have researchers found something that does trigger a fear response in UW sufferers: high concentrations of carbon dioxide in the blood. The fear of suffocation, simulated by breathing in high quantities of carbon dioxide, prompted the patients to feel fear for the first time in their lives. This suggests that the amygdalae, whilst important, are not exclusively the domain of the fear response.

However unpleasant fear may be S.M.’s case highlights the role it has to play in human survival from an evolutionary psychological standpoint: S.M.’s lack of fear has led her to handle dangerous animals that most sane people would seek to avoid. Just as pain is a protective mechanism to stop us



from inflicting further damage upon ourselves fear probably had a role to play in preventing early humans from running headlong into danger. Fears of snakes, spiders and other such creatures is likely a throwback from those times, and partly explains why people such as Europeans still display seemingly irrational fear responses towards harmless European animals.

But what if, using knowledge from S.M. and other UW sufferers, we could ‘shut off’ fear? Create super soldiers capable of fearlessly charging into battle? Fire fighters who run headlong into burning buildings? Despite damage to her amygdala S.M. is otherwise normal. Already people display a complete absence of fear in certain extraordinary situations (sometimes

called phobia). This pushes them to otherwise impossible extremes. Selectively being able to dampen or even eliminate fear in this manner could prove extraordinarily useful.

Such an on/off switch to fear would have to be carefully controlled. As handy as such a switch might be a complete lack of fear also means no longer fearing death. Already serving soldiers, fire fighters, and those in other high-risk occupations put their lives on the line. Hypothetical users of a fear switch would have to accept that their lives would be placed at even higher risk.

But controlling fear is still some way off. As the case of S.M. shows the amygdala plays a large role in controlling fear, but its function would need to be clearly understood before it could be efficiently turned on and off ‘as needed’. In the meantime you’ll just have to man up and ignore that innocent garden spider in the corner of your room. The little guy isn’t going to hurt you.

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## DOODLE OF THE WEEK



Why work? Instead, doodle all lecture long and then send us your drawings to [arts.felix@ic.ac.uk](mailto:arts.felix@ic.ac.uk). This colourful doodle was drawn by Ioanna Kalogeraki.

## TIRED OF LIFE?

### Our pick of what's on in London

**Saints Alive @ The National Gallery** - A series of large-scale kinetic sculptures by Michael Landy bring a contemporary twist to the lives of the saints. An unusual choice as collaborator for such a traditional institution his work is more the product of junk yards and flea markets than studios or galleries. Now - November 24

**Regime Change Begins at Home @ William Morris Gallery** - This quirky exhibition of paintings by David Mabb championing the history of political protest is a great excuse to visit an up and coming gallery recently awarded the Art Fund Prize for Museum of the Year, winning a cool £100,000. Now - June 30

**Patrick Caulfield @ Tate Britain** - Described as a survey of Gary Hume's work, relatively shortly after his death this show offers a great opportunity to acquaint yourself with the occasionally iconic but often overshadows modern artist. His mastery of colour, graphic elegance and wit is suited to a wide range of tastes. Now - September 1

**The Cripple of Irishmen @ Noel Coward Theatre** - The next show in the opening salvo from Michael Grandage's new theatre company is guaranteed to draw a crowd with a certain boy wizard staring. However if past examples are a guide to expectation this play with pack a quality comic and emotive punch. June 8 - August 18



# Where are the female artists?

## Guerrilla girls going ape

Fred Fyles

Writer

From Nick Ross' recent comments about rape, to the on-going campaign against 'Page 3', it seems that barely a day goes past without a reminder of the constant need for feminism. A couple of months ago a new website was started that provides yet more evidence for feminism's role in society. '100% Men' aims to reveal 'corners of the world where women have yet to tread', exposing places where female representation is sorely lacking. However, while it may not seem surprising that there has never been a female president of the Royal Society, or that male MPs outnumber female ones 4:1, under representation of women extends far into some surprising facets of life.

The artistic world, which is often held up as an egalitarian beacon of hope, is also guilty of preferring men over women, especially within the visual arts. The Tate Modern may have just opened a retrospective of the Lebanese abstract artist Saloua Raouda Choucair, but in the Tate Britain's lauded new rehang, which they describe as 'a circuit of Tate Britain's unparalleled collection, from beginning to end', less than 8% of the works are by female artists. Women make up over 60% of art students, but only contribute to 30% of the works displayed in London's galleries. So, with such a disparity, it is surely fair to ask: "where are the women?"

This is a question that is familiar to the Guerrilla Girls, a collective of feminist activists who combat sexism in the art world through humour and hard-hitting visuals. Founded in 1985, following the MoMA's exhibition *An International Survey of Recent Painting and Culture*, in which only 13 of the 169 artists were women, they have become

known for their distinctive visual style.

Taking on the names of dead female artists and dressing up in gorilla masks, they descend upon art galleries, leaving a trail of evidence of discrimination in their wake. One of their most famous posters is from 1989, and asks the question 'do women have to be naked to get into the Met?', prompted by the fact that less than 5% of the artists in the Met's modern section were women, but 85% of the nudes were. In a recent recount they found that – despite more than 20 years of activism, during which museum curators promised to display more art by women and minority artists – the percentage of female artists had actually decreased. But why is this the case? Why are the major museums so reluctant to display works by women artists?

Could the disparity be down to the 'Male Gaze'? First described by feminist film theorist Laura Mulvey in 1975, it describes the idea that in film – and indeed, within any visual art form – we are looking from the perspective of a heterosexual male. They are in control of the camera, the ones holding the brush, and therefore it is through their eyes that we see the work.

The case has been made that the female form is more visually appealing and, although it could be argued that this is only due to how entrenched the gaze is in society, perhaps this is why there are so few female artists; lacking 'the gaze', they find it more difficult to make work that is appealing to viewers. This could also explain the disproportionate number of female nudes – they are simply more appealing. Just as the camera lingers on a woman's curves, so too does the artistic canon linger on the nudes of Titian, Manet, and Klimt.

Such an explanation is simple and concise; unfortunately it is also misguided. There is no shortage of female artists

exploring their own form, and yet it is rare that we get to see these portrayals. It can be seen in the work of Nan Goldin, whose puffy bruised face stares out of photos, acting as a documentation of her abuse. It can be seen in the work of Tracey Emin, whose exploration of her rape and sexuality is bold and brave. And it can be seen in the work of Hannah Wilke, whose brutal posthumous collection *Intra-Venus* documents her slow death from lymphoma. This work is seldom seen in galleries, and is even rarer in art history classes.

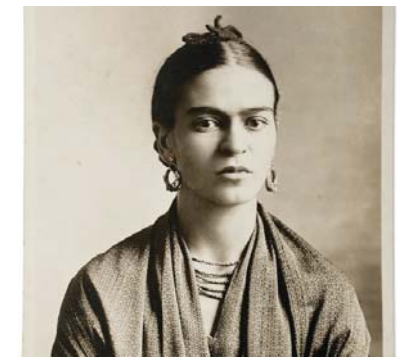
The women in these works are too real, too exposed for the general public. They have not been sanitised, their curves are not immortalised in soft colours. This view is captured by Martha Rosler in her 1977 video performance *Vital Statistics of a Citizen, Simply Obtained*, in which Rosler gradually strips, and her measurements are taken by a team of male scientists. It is a representation of an art world in which women exist only as objects, as a series of measurements, rather than living, breathing people.

These women have taken control of their own bodies, refusing to simply be objects on canvas, and yet they are all too often attacked for being 'self absorbed', their work seen as little more than a vanity project. It is a similar view that many people have towards performance art, a medium that has a long history of brilliant female artists. From Yoko Ono and Laurie Anderson, to Carolee Schneemann and Marina Abramović, there is no shortage of women creating witty, self-aware artworks; and yet, for many, performance art is seen as 'non-art'.

Such an attitude has also been taken against the art forms historically dominated by women. Pottery, needlework, and textiles have traditionally been con-

## How many female artists can you name?

Left to right: Yoko Ono, Frida Carlo, Laurie Anderson, Tracy Emin, Yayoi Katsama, Bridget Riley, Nan Goldin





Arts Editors: Eva Rosenthal,  
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ARTS



# Do women have to be naked to get into the Met. Museum?

Less than **5%** of the **artists** in the **Modern Art** sections are women, but **85%** of the **nudes** are female.

**GUERRILLA GIRLS** CONSCIENCE OF THE ART WORLD  
www.guerrillagirls.com

sidered 'women's work'; dominated by women, they are lumped together as 'handicrafts', a genre completely separate – and far inferior – to the male-dominated 'fine arts'. The Feminist Art movement of the 1970s tried to address this attitude by elevating the decorative arts to the level of the fine arts, a mission that reached its zenith with Judy Chicago's 1979 piece *The Dinner Party*, in which place settings are laid out for 39 great women from history. Hand-crafted table runners celebrated these women's achievements, while the plates were decorated with images of butterflies and flowers, symbolic of vulvas, all in an effort to celebrate the decorative arts.

Unfortunately, very little has changed, and the hierarchy of the arts continues in the way described by Le Corbusier in 1918: 'Decorative arts at the bottom, and the human form at the top. Because we are men.'

This focus on female artists often prompts the tired question 'why are there no great female artists?' It is a fair question? Where is the female equivalent of Botticelli? Turner? Picasso? The answer to this question will largely depend on who you ask.

If you ask the *Evening Standard* art critic Brian Sewell, he might tell you that 'only men are capable of aesthetic greatness', and that women's inability

to create art could be 'something to do with bearing children'. If you ask Georg Baselitz, one of Germany's leading painters, he might tell you that 'women don't paint very well. It's a fact, backing up this claim with the fact that 'they don't pass the market test', despite work by impressionist Berthe Morisot being more than twice as expensive as his own.

However, if you ask Linda Nochlin, art historian at New York University, you might have a rather different response. Her 1971 essay, 'Why have there been no great women artists?', argues that the lack of great female art is a result of centuries of oppression against women. Historically, the art studio, like many aspects of life, was closed to women, a male-dominated world.

The very few pre-19th century female artists are often daughters of other famous painters, such as Artemisia Gentileschi, daughter of Orazio Gentileschi, best known for her visceral work *Judith Slaying Holofernes*. These women were able to break out of the rigid social norms of the time thanks to their position and influence, but how can there be a legacy of great female painters if there is no way for women to access the arts?

For an example closer to home, we need do no more than walk down to Green Park and visit the Royal Acad-

emy; founded in 1768 to 'promote the arts of design in Britain', it took another century until the first women enrolled, in 1860. Even then, women were barred from life drawing until 1893, and even then the subject had to be partially clothed. It was not until 1936, nearly 200 years after it was founded, that a woman was elected to the Royal Academy. With such constraints placed on their training, it is hardly surprising that we have no female Turner.

Another subject Nochlin touches upon in her essay is the idea of the 'golden-nugget theory of genius'; within art history there is a tradition, stretching back centuries, of the 'genius artist', plucked from obscurity and somehow destined to make masterpieces. They possessed the 'golden-nugget' of genius, and therefore it was inevitable that this genius would rise to the surface, and the world would know them as a great painter, regardless of the circumstances.

Proponents of this theory may point to the Florentine painter Giotto, saying 'Look! He was a mere shepherd's boy before somebody noticed his doodles and took him on as an apprentice'. They point at Van Gogh and argue that even with his crippling seizures, he was still able to produce great art. They hold up Picasso and screech of how he was able to pass all the examinations for the Madrid School of Art – an examina-

tion that normally took a month – in a week, at the age of 15. Each example reinforces the idea of the 'golden-nugget', and tries to silence the feminist critic; 'if they could do it, why couldn't she?' they ask. While many professors of art history are careful to be wary about the authenticity of such tales, the idea of the tortured, white, male genius has become deeply ingrained within the public consciousness; it is a myth that excludes females, rendering the world of classical art as a 'Boy's Club'.

'Kathe Kollwitz', one of the founding members of the Guerrilla Girls, believes that, while the Male Gaze, and the stereotype of the male genius artist have contributed to discrimination, nothing holds more power in the art world than cold, hard cash. When I ask her about the idea of the Male Gaze, she dismisses the idea, referring instead to 'the male pocketbook'.

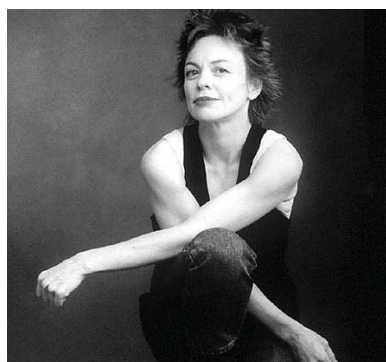
'Most art collectors are wealthy men whose taste influences what artists are exhibited and collected by museums', she says; "These men donate money and artworks to museums and sit on acquisition committees that help the curators decide what art to collect. Curators don't really need help figuring this out, but they need trustees' money to get the art. It doesn't take a genius to realize that the system is ripe for corruption since collectors can promote

acquisitions of work by artists they own, and that in turn makes their private collections more valuable".

Linda Nochlin has said: "Those who have privileges inevitably hold on to them, and hold tight, no matter how marginal the advantage involved", and when we look at the art world it is difficult not to see it as 'Kathe Kollwitz' does – a 'playground of the 1%'.

Things may sound bleak, but they are not hopeless. Organisations such as The Guerrilla Girls, and UK Feminista are tirelessly campaigning for major galleries to display more female artists, and 'Kathe Kollwitz' singles out the Tate Modern, Stockholm's Moderna Museet, and the MoMA as examples of museums that are trying to do better. But they cannot do it alone.

In Lynn Hershman Leeson's film *Women Art Revolution!*, which documents the growth of feminist art, there is a particularly painful scene in which people are stopped outside the MoMA and asked to name three female artists. None can. Could you? The subjugation of female artists has to end; get in contact with the galleries, and ask them to address the imbalance. Find out more about artists like Louise Bourgeois, Tamara de Lempicka, and Cindy Sherman. Do not allow the plight of the female artist to be confined to the annals of history. The time for change is now!





# Beauty and the beholder's eye

Meredith Thomas interviews Jennifer Louise Martin on the male gaze

I met Jennifer Louise Martin in the food hall at Selfridges. To get there I had to walk through the cosmetics hall. Through the haze of perfume, immaculate girls stared out with twinkling eyes, watching my progress as I picked my way through counters stacked with foundation, mascara and lipsticks. I had wondered whether Jennifer was setting herself up to make a point. As it emerged, she is far too straightforward for intricate ploys.

Jennifer has just finished her first solo show in London at the Strand Gallery. Her rich textured paintings depict glamour models plucked from the pages of magazines. The images are as layered conceptually as they are in paint, laced with subtext and questions about the illusory nature of perfection and the affliction of beauty.

**Meredith Thomas: Can I start off by asking how you got into art?**

Jennifer Louise Martin: I went to St Martins for a foundation in 1999, then I actually did a psychology and neuroscience degree for three years. After that I went back to St Martins in 2005. I really loved St Martins and my foundation course is really what got me into oil painting. I fell in love with paint and ever since then I never stopped doing it. In between the years I was studying psychology. I always tried to continue my art, but painting fell by the wayside because I didn't have the time. I didn't really have the space or studio to paint. I did a bit of fashion and made my own clothes. I was always creative but I went back to painting when I graduated university. I became much more artistic having really missed my painting. I taught myself quite a lot because I had to keep it going.

**M: How would you say that your study of psychology has informed that work you do?**

J: It definitely informs the work I do, because I am interested in the psyche of the female mind. How women perceive beauty, how women think about it and try and obtain it... What does this actually mean to women? These are the questions I am interested in. There is a whole market out there, makeup, plastic surgery, all these things that women think about, spend money on. The psychology behind beauty really informs my work, from a women's point of view.

**M: How long had you been painting before these shows came up?**

J: It would be about ten years on-and-off. I've done a lot of residencies where

I have gone and lived and painted in a studio, then shown my work at the end. Since about 2005 I have been interested in female faces and portraits from magazines and photographs. It's been a theme for a long time.

**M: So how did that develop?**

J: It started when I went to Los Angeles. That inspired me a lot because, obviously, you've got the whole plastic surgery culture and the theme of beauty is really prominent. My painting style changed quite a bit there, it became a bit more photorealistic. You can see the faces and features are more prominent, the lips and the eyes.

**M: I want to get into this idea of beauty a bit more. Do you see beauty in the models that you paint?**

J: Yeah, but the images I choose, are a huge part of the process. It takes me a long time to find a picture to work from. I will scour through heaps of magazines and it would be something about the image that captures me, either the face, the structural features, or just the way the photograph is taken, the colour or the composition. Mainly it is because I will find that person beautiful.

**M: So is it the person or the photograph?**

J: Not the person, the face! So probably the photograph, the way that they have been shot or how it looks to me. It could be the way the photograph is taken, you're right, it could be that.

**M: Do you ever get the same reaction to something in life?**

J: I do get that. It has happened a couple of times where I have actually approached someone in a restaurant or at work where their face has just popped out at me and I have asked to paint them. This happened recently. She had such eye catching features that I approached her in a restaurant. That's the first time I've done that. She is now my next sitter. I will do studies from life and then I take a picture and work from that. So this time, with the specific subject I'm working from my own photograph.

You know it could be an object that is beautiful. For me it just happens to be faces. It could stem back from years ago; I wanted to be a model when I was about eleven.

**M: This is probably too simplistic a question but, do you think we are too beauty obsessed in this society?**

J: Oh, totally yeah. And you could argue

that I am too.

**M: If you're changing your approach to painting a real person, is that going to change the way you react and respond, because you are not seeing the subject through the lens of another photographer?**

J: I think it will do, because it's more first-hand isn't it? The fact that I have taken the photo means it's all a bit closer to my own hand. But what will happen is that

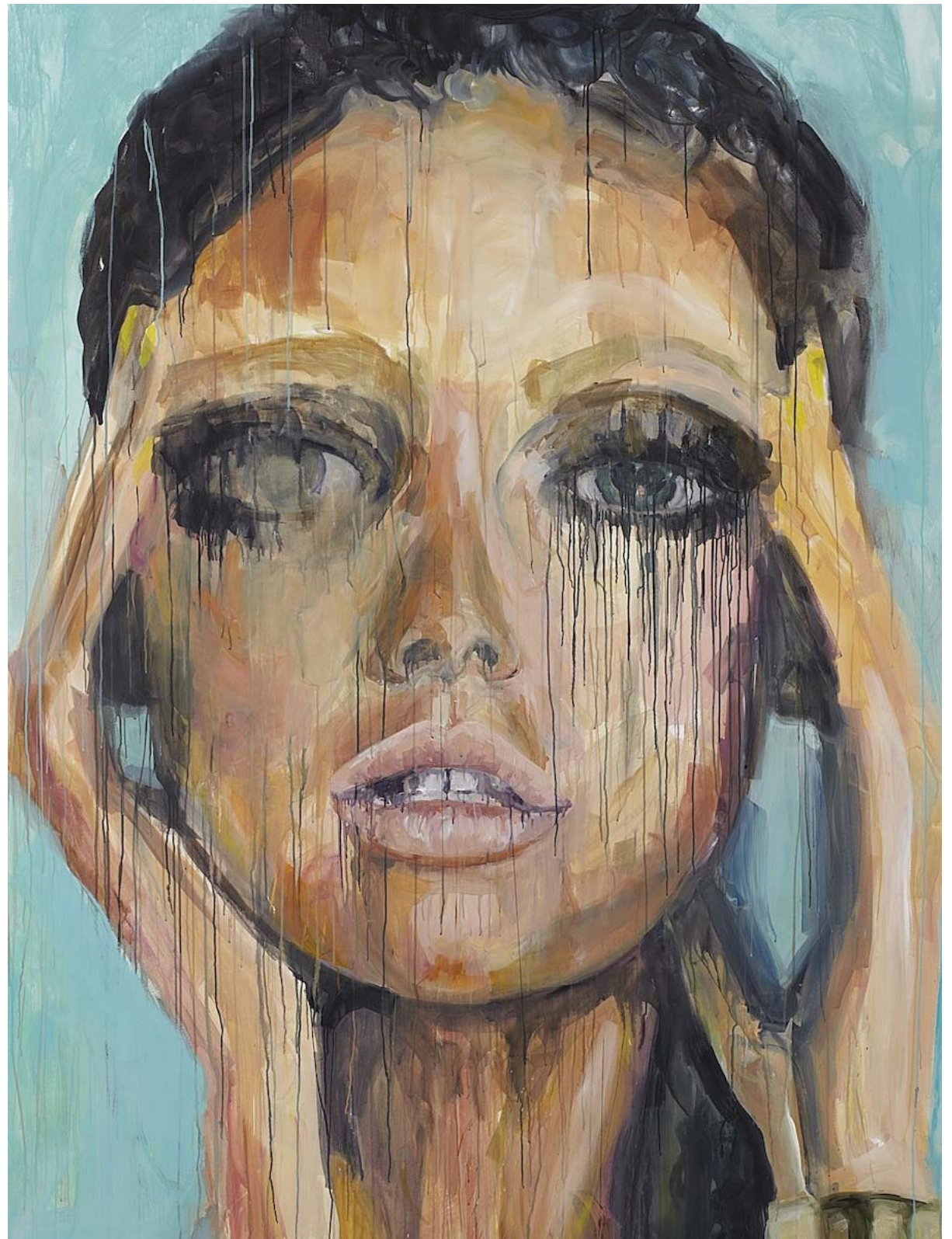
it will be a much more natural picture, because there is no lighting, no staging. So we'll see how the painting turns out. It will be different.

**M: How do you start a painting?**

J: I look at the image for quite a long time. I will absorb the colours straight away, I will immediately know my colour palette. As you can see I use a lot of tones of the same colour. I like to add depth to give the image some kind of

story, it adds a personality to the model, there is a story behind her, sort of paralysed by perfection. You can see they are pensive, or thinking. There is this kind of destructive self. That is what I am thinking while I am painting which is why you get this challenging aspect to the painting.

**M: So there is an element of empathising with the subject, even through so many layers of paint and another person's lens?**





Arts Editors: **Eva Rosenthal,**  
**Meredith Thomas**  
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# ARTS

J: Absolutely! What is she really thinking? What does she really see? Does she like people staring at her? Does she like walking out of home and seeing a million cameras? I'm thinking about how it would be for her to be in the subject of the gaze.

**M: How do you deal with that conflict? On the one hand, with you painting, you are buying into this concept totally and on the other you are trying to challenge it.**

J: I am trying to challenge it. One thing is that these women get totally airbrushed, so there are these hidden lies that I try and reveal in my painting, just through the use of paint. Because paint, being the material that it is, reveals something that a photograph wouldn't. And that is why I like painting these subjects.

I challenge it because I know that there is this airbrushed trickery directed towards the public. And they buy into it, especially girls. It's not really the truth. I'm trying to relay something of the truth.

**M: How do you resolve the fact that you clearly do have a sense of beauty, so it has a truth for you and yet you are looking for the more fundamental levels of truth. And how does that conflict resolve itself?**

J: There are a couple of pieces in the recent show, *Paralysed by Perfection*. It's about this struggle for perfection, which is a personal thing I have as well. One of the things I actually did was to text the subconscious thoughts as I was painting. Thoughts about how it wasn't perfect. You will see some severe imperfections in my work, the eyes missing or some things scrubbed out because. I create layers and layers all the time. I want people to see those layers because I want to get the message across that beauty isn't this perfect ideal, it doesn't actually exist. And the reality is that imperfections are what make you perfect. Which has taken me a long time, about six years to come to realise in my work. Hence this show that I have just done. That is how I have been recently thinking about it. That is the message I have been trying to get through.

**M: So when someone buys one of your painting and takes it home, and its hanging on their wall what are you hoping that their response to it is?**

J: Some people do think some of them are quite horrifying, which used to get to me a bit because I don't make paintings to horrify people. [They are] definitely not decorative, but I want [people] who buy my work to have something to gaze at and think about. The people who buy [my art] say that the more they look at it the more it changes and the more they see in it and the more they fall in love with it. This epitomises that idea of the women in their house, which the more that they are around the more they fall in love with it [the painting]. [Then there is] that whole idea of beauty: when you are not beautiful, but you hang out with

someone that is what happens – you get to know them and who they are.

**M: Why do you think beauty is so important to us as a society?**

J: It goes back to Adam and Eve. It's the way that we attract people for sex. Also celebrities and the media have a lot to do with it. These girls, they want to look like their idols. We are too scared to age naturally too. It's about keeping that youth.

**M: Do you think it all relates to eroticism? Is there a pure aesthetic beauty?**

J: Do I think that there is an aesthetic to strive for? No, I think it's totally individual. I think women should age naturally and embrace that. I don't think you should try and change yourself. Unless it is something that affected you inner self so much that, it was something you were genuinely unhappy about. But when people go and do it on a whim... It has become an obsession.

**M: How do you respond to the fact that these cultural ideals of beauty seem to change so much between different societies and ages?**

J: I find that really fascinating. I was with my friend a couple of weeks ago and she is from Ghanian culture. The idea of beauty in that culture is completely different to the one that I was brought up with. Even from a figure aspect, what men find attractive in a women body... Is amazing that you can get so locked into what your culture is thinking, the patterns that become all you believe is beautiful. Which again, is something I have tried to tackle in my work, by choosing muses who are quite quirky. Back in the day in 2006 I painted Kate Moss. I wouldn't decide to paint her at all now. You do get a lot of models now that are considered quite ugly. So there is a fine line and I like that.

**M: Have you changed the models that you paint because society has changed that way that they are seen or have you have changed the way you see them?**

J: I think probably more society, because that's why I'm finding them more in magazines. It's the scouts that are changing it and changing other people's too.

**M: What do you understand the Gaze to be?**

J: I have taken it to be the stare of someone else's eyes fixated on something, or someone. In this case the model. My boyfriend can't believe how I will gaze at women in real life, and say I would really like to paint her. He doesn't understand it. It almost comes across as more sexual than he would look at a women. But in a totally different way...

**M: If you could change society through your work how would you seek to influence the way both men**

**and women perceive beauty?**

J: I think, for both sexes the one thing I would try and get across through my work is that beauty is not perfect. There is no ideals and it is the imperfections that make someone beautiful.

**M: Do you feel it has been harder trying to break through in that art world as a women?**

J: I have never ever looked at it that way but I am doing a course at the moment where I am in an open studio with 15 other painters and most of us, I think the majority, are female. There are about four guys. But hearing them speak it has dawned on me that it is very male habit in the art world. Men have a big voice and women sometimes don't get heard. I don't think it holds me back in any way. The whole feminist art movement

is obviously very interesting. But it's not really an issue. I think it's evening out a lot more. It's a lot different than it used to be. You have the Tracy Emin's of this world...

**M: Would you ever paint a male model?**

J: Yeah, I've had a lot of people ask me.. I've never painted a male. That's not to say I wouldn't one day. There's only ever one man that I've seen and thought, yes, I could paint him. There is something that just doesn't inspire me as much. It is to do with sensuality. A lot of the models have the voluptuous lips, but it is a lot to do with makeup as well. I think that is probably why. I do choose images where the women is quite made up because it is the mask over the original beauty underneath. I try to deconstruct that through the paint. But it is also the colour as well.

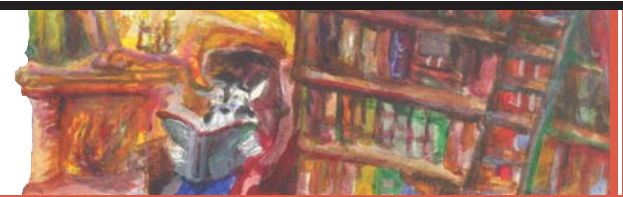
With the male I just wouldn't get that. But now that I am painting a girl who has no make up on it could lead to a male, who knows.

**M: What would you tell the eleven year old Jennifer who wants to be a model?**

J - Once, a friend on the train got scouted and I didn't... It would be exactly that. Just because you are not the one scouted to be a model, it doesn't mean you are not good enough or you are not beautiful. It's because they are looking for a certain type of look, a skin, feature. You become just an object. People think that being perceived as beautiful is a good thing, but actually. I think sometimes it can be a total affliction. So I made a painting about that. She has no eye which means she cannot feel people staring and the affliction a beauty.







# Let's Talk About Homestuck

Maciej Matuszewski looks at a truly innovative webcomic



I am an avid follower of many webcomics – both of those with standalone strips and those with longer running storylines. I have, however, found that for the most part, apart from the means of distribution, they don't differ all that much from their print counterparts. Despite the many creators out there producing brilliant work, there are very few who have attempted to utilise the internet as a creative medium to its full potential. One of the few who, in my opinion, has, is Andrew Hussie, creator of *Homestuck*.

From its first pages *Homestuck* appears to be fairly standard fare. The first page introduces us to one of our protagonists – John Egbert – as he ea-

gerly awaits the arrival of a birthday present – the beta version of a *Sims*-like game called *Sburb*. The artwork is simple – some might even say crude – and the story is told mainly through chat logs of the protagonists' instant messenger conversations. It isn't long, however, before the comic's more experimental and, shall we say, eccentric qualities begin to manifest themselves. Much of the early storyline was heavily based on reader's suggestions, which, combined with Hussie's own brand of highly anarchic humour means that there is nothing that is too bizarre for this webcomic.

It is difficult to give even a bare outline of the plot. Coming in at over 6000 pages, and almost 100,000 words

longer than *War and Peace*, this certainly isn't a quick read. It is also one of the densest and most convoluted stories that I have ever read. There are dozens of primary characters, the story is heavily reliant on time travel and the action takes place in at least four different alternate universes. That's not to mention the numerous fourth wall breaks and moments of author insertion. While in other works I might be tempted to call all of this gimmicky and excessive, in *Homestuck* it all comes together to work incredibly well. PBS has compared *Homestuck* to James Joyce's *Ulysses*, in how, while at times seemingly impenetrable, it is still deeply rewarding. Hussie is a highly skilled writer and manages to

use this complexity to create a story that is not deep, engrossing, funny and filled with engaging characters but also one that is unlike anything that you have ever seen before.

All of this is helped by how Hussie is not afraid to play with his medium. There is often experimentation with new art styles and from the very beginning heavy use was made of animated gif panels. Later on these evolved into minutes long flash animations (*Homestuck* currently includes over three hours of full animation) and even short interactive games. There have been some 25 official music albums inspired by the comic and Hussie is currently working on a full adventure game set

in the same universe as the comic – the Kickstarter for which raised over three times its \$700,000 target.

I will admit that this certainly won't be everyone's cup of tea. It requires a substantial investment of time to get into and some might, perhaps quite rightly, view it as pretentious and full of itself. It is, however, something completely unique and I believe that it deserves praise for that if for nothing else. The comic is currently on hiatus while Hussie works on the aforementioned game so this is the perfect chance to catch up.

*Homestuck*, along with Hussie's earlier work, may be read for free at [mspaintadventures.com](http://mspaintadventures.com).



# INDIGO

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# PHOENIX 2013





## PHOENIX

THE ANNUAL LITERARY  
AND ARTS MAGAZINE  
OF  
IMPERIAL COLLEGE  
LONDON

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Imperial is a science-focused university, but look beneath the surface and the depth of artistic, musical and literary talent to be found among our staff and students is truly astonishing. We have a contemporary art gallery, the Blyth Gallery in the Sheffield building, that regularly features work by Imperial students alongside other emerging London artists. Our symphony orchestra is considered one of the finest university orchestras in the UK, and exists alongside an array of other musical groups and societies as well as an award-winning dance company. Several academic departments have artists-in-residence working

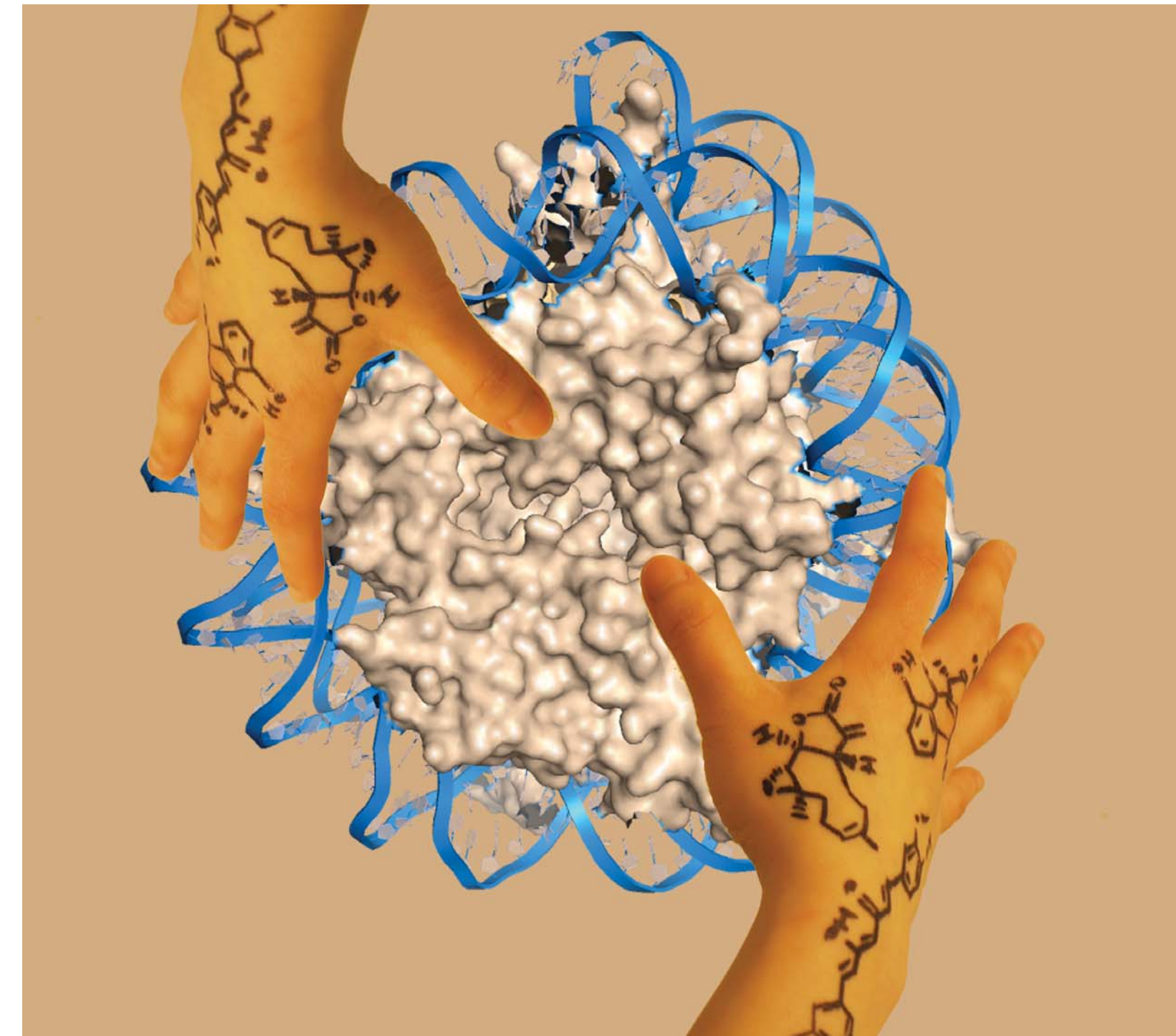
alongside researchers. The Humanities Department (yes, we do have one, well-hidden though it is in the depths of Sheffield) runs a creative writing course led by an Orange-prize longlisted novelist. Imperial defies the 'two-cultures' divide. That a world-class institution in scientific research and education can simultaneously have such a thriving creative culture proves that art and science are not incompatible opposites. Instead they can co-exist — in the same person, the same place, the same endeavour — and perfectly complement each other. This edition of *Phoenix* then is all about those intersections: the way an individual balances their creative and scientific accomplishments within their own life, how different cultures and influences come together to inspire original art, the

use of art in communicating and visualising science, how scientific fact meets literary flair in speculative fiction, and even the merging of creative expression with physical strength and discipline in dance. In the following pages, features focusing on these intersections are interwoven with submissions from across the Imperial community (from undergraduates to support staff to academics), including poetry, short stories and visual art. I hope this goes some way towards demonstrating the diversity and the quality of the artistic accomplishments achieved here, and gives a glimpse into the complex reality that exists behind Imperial's official scientific face.

— Sarah Byrne, *Phoenix* Editor



# DESIGN MEETS *SCIENCE COMMUNICATION*



Ben Miles and Ken Srimongkolpithak are PhD students in Imperial's Institute of Chemical Biology. They use their artistic talents to create visualisations of their nanoscale research, and both have had their work featured on the covers of scientific journals.

“Epigenetics is something beyond or above genetic control. For example, identical twins may look significantly different when they have grown up in different conditions. Likewise, a bee and a bee pupae also have the same genetic code but look totally different during their life time. These differences may stem from epigenetic control. Here the hands represent control or manipulation, and small molecules are natural products which can modulate the epigenetic process.”



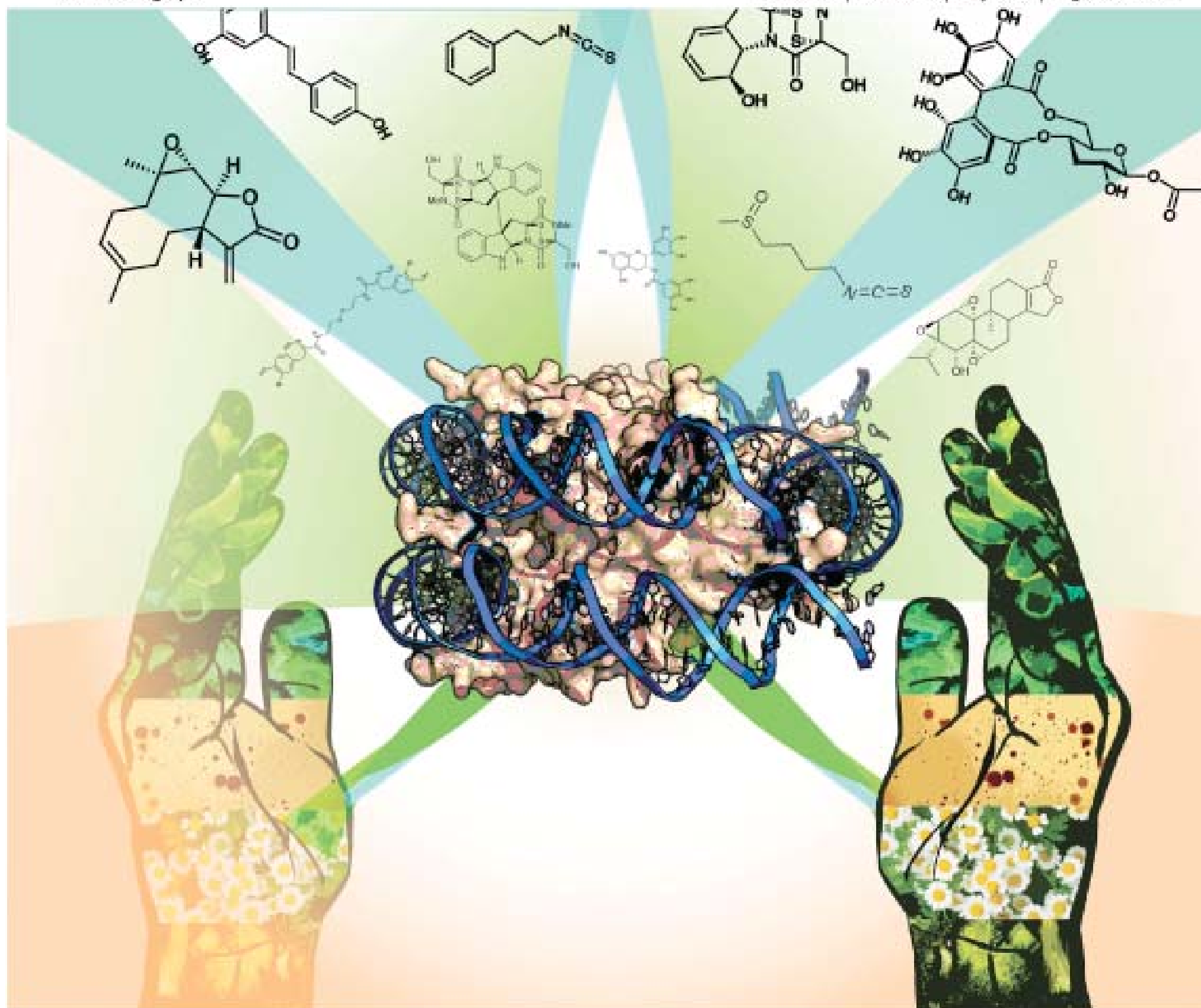
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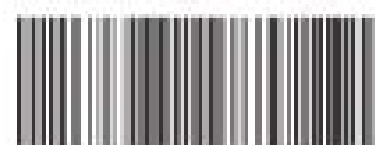
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RSC Publishing

REVIEW ARTICLE  
Matthew J. Fuchter *et al.*  
Perspectives on natural product epigenetic modulators in chemical biology and medicine



0265-0568(2013)30:5:1-3

# Translation

“

Translation is the process by which life produces proteins from genes. A complex of proteins called the ribosome reads a transcribed molecule of DNA called mRNA. As it reads the mRNA it sequentially assembles amino acids into proteins with the help of molecules called tRNA.”

Cover by Ben Miles



# BEFORE THE DAWN

by Cosmin Badea

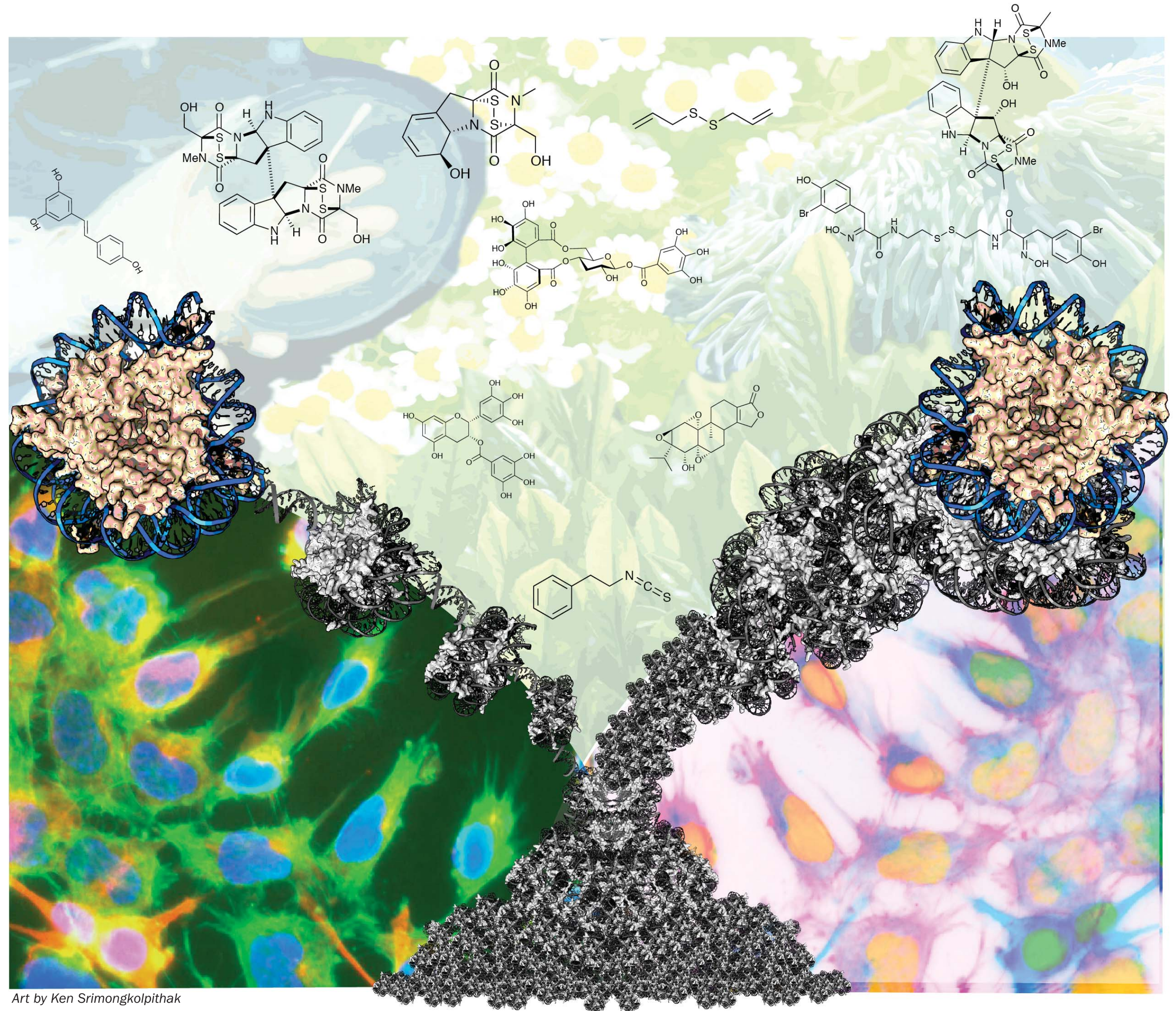
I slept alone last night  
I dreamt of your last smile.  
I hoped I'd see it shine  
Again.

I slept alone all winter  
I dreamt of what we were.  
I woke to find the world  
Aflame.

I slept alone all year  
I dreamt of how we lost.  
I hoped I'd not wake up  
Alive.

I slept alone for sixty years  
I dreamt of all the life we'd  
have  
I have been falling all my life  
Alone.

I have been sleeping since  
you left  
I feel I'll soon wake up.  
I hoped I'd see your face  
again  
Before the dawn.



Art by Ken Srimongkolpithak



## SUNDAY DRIVER

## FOLLOWING IN HG WELLS' STEAMPUNK FOOTSTEPS

“

My first postdoc was in the Antarctic. I didn't hear a female voice for three months, I think that might be why I started singing...

”

“

Steampunk's very scientific...the wonder and passion the Victorians had about science was one of the best things about that time

”

*Imperial alumnus and parliamentary science advisor Chandu Nath talks about her other life as lead singer and songwriter with steampunk/fusion band Sunday Driver, and traces her influences back to Phoenix magazine's founder HG Wells.*

**Phoenix: What's it like being a scientist and a musician, is it difficult to switch between the two?**

SD: Sunday Driver: That bit's not actually that difficult, it's really easy to just switch, I think because I've been doing both for so long. But the difficult bit is finding the creative space, so when everything gets busy at once it's really difficult to decide whether to think about music or think about science and sometimes they push each other out.

**P: And is it difficult to find the time to devote to music?**

SD: It has been in the past. When I was a research scientist it was really difficult, because you can't choose your timings with research. I guess the job I've ended up in...it lends itself much more to allowing the space. Parliamentary recess is exactly when the festival season starts. But it can be a bit of a nightmare, it's very hard to explain to people that you're going to miss a meeting because you've got a gig.

**P: Do you think your science inspires your music?**

SD: Yes, totally. A lot of my early songs were actually inspired by things I did because of science. I'm not actually sure if I'd ever have started doing music if I didn't do science, it's symbiotic. My first postdoc was as a glaciologist and I spent four or five months in the Antarctic: that was when I really started writing my own songs, really decided I wanted to form a band. I kind of took a vow to myself... it's quite funny, I loved being in the Antarctic but the work itself was so dull, it was so monotonous, and I just swore to myself that when I got back I'd surround myself with noise and colour and people and sounds, because you hear the same sounds over and over again, the pop of explosives in the ice and the chugging of the snowmobile and the sound of the shovel on snow... a hundred days with three blokes, even as a female physicist I wasn't prepared for that. I didn't hear a female voice for three months, I think that might be partly why I started singing to myself!

**P: And do you think it works the other way round?**

SD: It's a more subtle thing, it's more that the creativity and the performance gives me a lot more conviction, more confidence in what I'm saying. I think that if I've stood up on a stage and I've gigged to a thousand people, I can definitely write a report about nuclear security. So, yeah, it's a confidence thing really. And I think the science helps with the music, partly because I'm so desperate to get away from it! By the time I get to band practice, it's such a massive relief. Sometimes I leave work really stressed, and then after half an hour of singing practice I feel in a completely different place. So yes, it helps me focus on everything else.

**P: When you were at Imperial, were you in any of the musical or creative societies?**

SD: Well no, it's funny but actually I wasn't involved in anything musical at the time. I did creative things, but not as part of clubs. I tried to write poetry, drew pictures... one of the things I did get into at Imperial was playing the piano. There was a gorgeous grand piano in the Mechanical Engineering building that anyone could go along and play, I used to drag friends along and make them sit in an empty lecture theatre

and play to me for an evening, it was magical. I'd love to know if it's still there, because I loved that piano

**P: Did you know about Phoenix?**

SD: I have to admit I didn't at the time. But I'd have loved to know about it, because HG Wells is linked to the whole steampunk thing which is a big inspiration for the band. And one of the not-so-good things about Imperial was the absence of any kind of arts or humanities, I really missed that. When I was at Oxford I hung out with people who were doing humanities, it's really good to interact with people with different mindsets, it opens your mind up a little bit.

**P: If you had the opportunity, would you give up your day job to be a musician full-time?**

SD: No, if I had the opportunity, I would do science, but I'd do it on my terms. In some ways it would be nice to try escaping from the routine. But in other ways I think it's what's allowed me to do what I've done: Sunday Driver is completely creative, we're not governed by any need to appeal to a market, we just write the songs and make the music that comes to us. We've all had opportunities at one time or another to make that transition, and we've chosen not to. It used to tear me up a lot more, but now I'm really happy with the balance I've got. That's one of the reasons I left research. I don't think I could have done research and been a singer, which is a shame, but it doesn't allow you to have another passion.

**P: When Sunday Driver started out, did you intentionally set out to create such a diverse band, in terms of the different cultural and musical backgrounds you all have?**

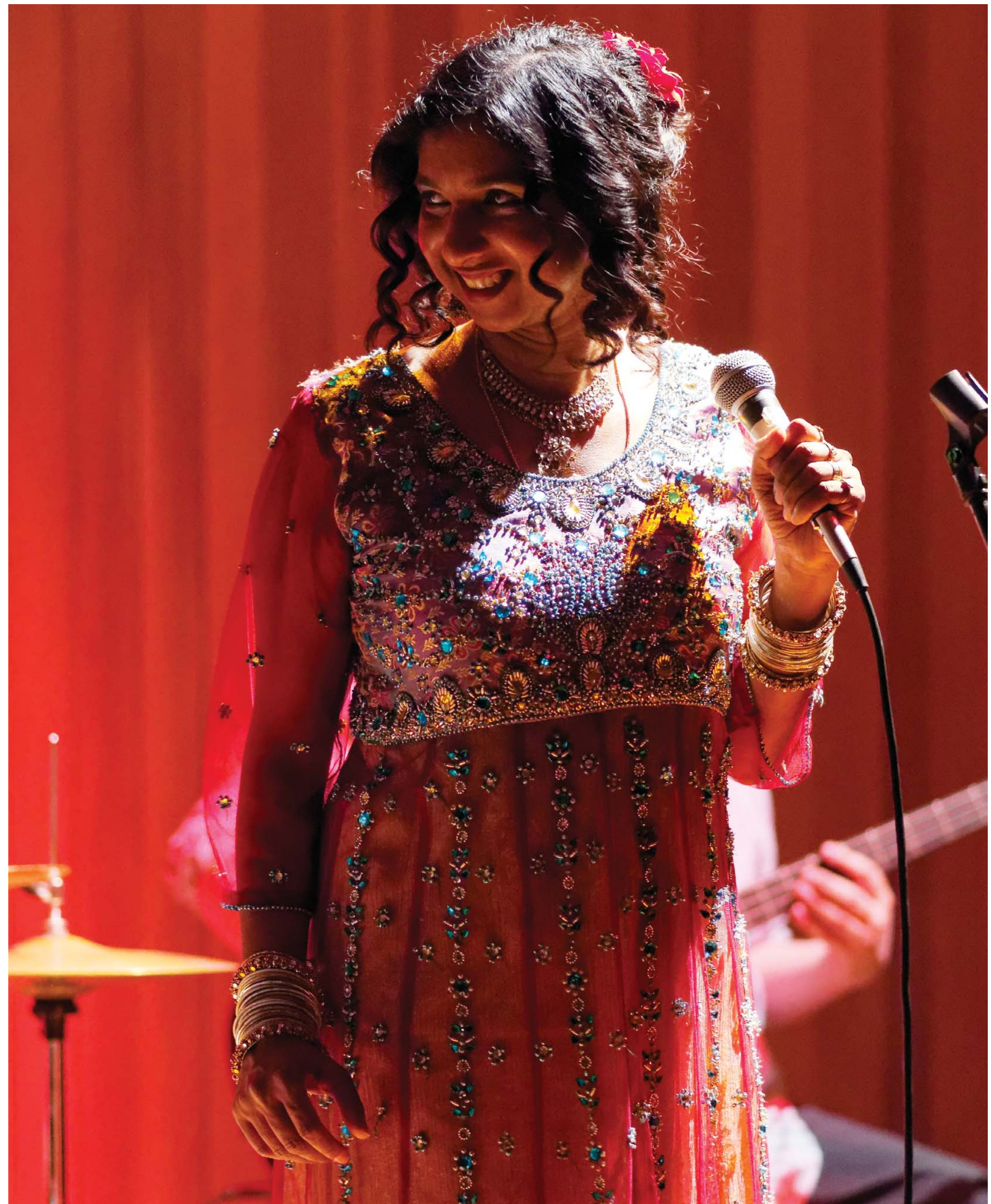
SD: Well, I always wanted to do that. I don't really think the other people in the band were that bothered, they just wanted to make beautiful music, and because of the sorts of people we were, and our backgrounds, it ended up being really diverse. And that was always what I wanted, so I probably steered it in that direction, by bringing random tabla players along to band practices and forcing band members to play instruments they'd never heard of.

**P: What about the steampunk influence?**

SD: We never set out to be a steampunk band, but the steampunk scene has adopted us to some extent over the past few years, because the last couple of albums we've done have very much drawn on the interface between the Victorians and the British Raj. And steampunk's very scientific. That's something that really appeals to me, because I think a lot of the wonder and the passion the Victorians had about science was one of the best things about that time, just the amount of excitement that science inspired, things like the Royal Institution and the Great Exhibition in the 1850s, and I like to take myself back to that era to be excited about science again sometimes.

**P: What advice would you give Imperial students with an interest in music or art?**

SD: Totally go for it. I'd say anything is possible, and I really think you don't have to choose between music and science. Don't push yourself into categories because you think that's what you are or that's what people want. Try everything. If you're into world fusion, make sure you listen to heavy rock. If you're into heavy rock, make sure you go to the ballet. It's about throwing different forms of art — different sounds — at yourself from all angles. And have fun with it really!





Sunday Driver play at  
The Forge, Camden,  
10th May 2013.



PHOTOGRAPHY BY SARAH BYRNE

# FIRE

by Cosmin Badea

The flames burn — orange and yellow.  
All that we have lived, in flames.  
Black is the sky, black the future  
Only this moment burns lively  
Orange and yellow.

Fire has now touched  
The memory of that moment  
When we met.  
What we once felt, in flames.  
White were we once, black is the ash  
Only a corner of the sad reflection is still burning  
Orange and yellow.

Catching fire now  
That kiss  
Which alone stopped the eternal.  
Sweet was your mouth, black is the pain.  
My seared lips taste the death of ages  
Still the fire rages...

Fire on the forest  
Of our own dreamt dreams  
Fire on the lake, the house,  
Fire in our house...  
Fire on the hearth  
Fire on the hearth...

Alone and afraid  
In a lonesome corner  
A lost, wasted child.  
Crying and attempting  
To put out with teardrops  
Such a fire wild.

Somewhere, far away,  
Alone and forlorn  
A girl that he haunts.  
Her eyes shut and teary,  
No more tears to cry  
No more hope she wants.

But the fire only  
Lives while it has feed  
Hope as oxygen,  
It has starved completely my  
Lungs already starving.  
The last drop of hope falls burning  
Orange and yellow.

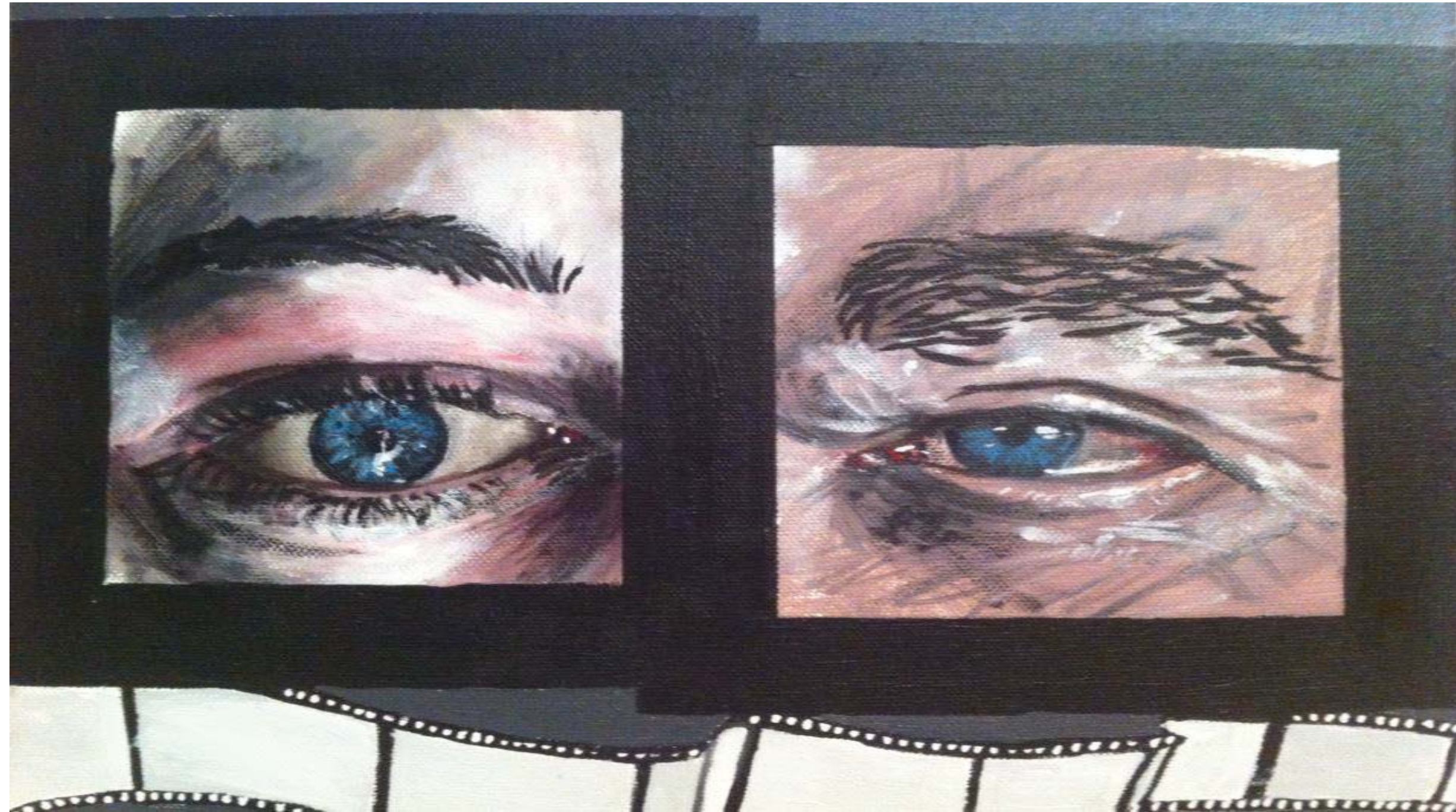
After infinity comes infinity.  
(Anything burns, everything!)  
For an eternity the cold fire's been rising  
But it has even burned its flames  
Which it had as wings in its flight  
From me, towards me.

After it, the silence.



# RETROGRADE Progression

by Ioanna Kalogeraki



*Ioanna Kalogeraki is a 3rd year Greek, female EEE Engineer, and will be leaving Imperial this year for an exchange in Singapore:*

“ This piece was made for the 2013 LeoSoc Exhibition, the title of which was “Retrograde Progression”. When I heard this phrase, I wanted to experiment with the connection between the past and the future in our lives, as I believe that our present is formed by the continuous interaction of these two. The eye on the left is the eye of my sister, symbolizing the future, while the one on the right belongs to my grandmother, symbolizing the past.”



# LAST OF GUERRILLA THE GARDENERS

by David L. Clements



David L. Clements is an astrophysicist at Imperial College London. This story was inspired by an art-science collaboration at Imperial (see interview on page 21), and originally appeared in *Nature Futures*, *Nature* magazine's science fiction feature.



“Scientific sense was never going to stand up to irate politicians shouting ‘Something must be done!’”

**T**hey came for ‘Percy Thrower’ last night. I was on my way to deliver some Pink Brandywine tomato seeds when I saw the first police car. I turned the corner and saw a fleet of them parked outside her house, complete with sniffer dogs and a space-suited forensic team heading for her potting shed.

I averted my eyes and walked past on the opposite side of the road, feeling the envelope of illegal seeds in my pack broadcast my guilt. As I left her road, the sterilization van arrived, its flame throwers ready to destroy ‘Percy’s’ irreplaceable collection of plants.

I got away. The others weren’t so lucky.

As I waited for the bus I checked our secure server and realized they were rolling up the whole network. ‘Monty’ had been the first, but in catapulting a package of herb seeds into Buckingham Palace gardens he’d gone too far. His arrest had been the trigger for raids across the country. ‘Bob’ had sent out a warning as they smashed down his door, but they’d been ready for us all. If I hadn’t been on a delivery run they’d’ve caught

me as well.

I couldn’t go home. Most of the people I trusted had been picked up. I stayed on the bus as it passed my stop and headed into central London. The clean-up crews were obvious, torching collections of wild flowers in the roadside beds that I’d seeded from bus windows while commuting.

All the hard work, all the beautiful, irreplaceable diversity, stamped out by commercial greed. If I’d’ve had the machinery with me I’d’ve leapt off the bus and seeded the palace gardens myself.

‘Percy’ had started the whole thing with a few prophetic words:

“Biology is the biggest peer-to-peer

copying system on the planet. Now they’ve eliminated file sharing they’ll come for the seed sharers.”

She’d been a university botanist for years but left when it became clear that all the grants were controlled by big agribusiness. We knew we were in trouble when Kew was sold off and Henry Doubleday broken up. Their vast seed collections became the intellectual property of a few huge corporations. Unlicensed seeds were already illegal to sell, but once companies owned the rare strains, they stopped collectors sharing them for free. They wanted to control it all.

At first we tried to stop them. There were protests, lobbies and mass march-

PHOTOGRAPHY BY SARAH BYRNE

es. *Gardener’s Question Time* became such a political hot potato it was cancelled by the BBC. And then came the Chelsea Flower-Show Riots.

When I got off the bus I saw the police at the station. But it was just the usual patrols, not yet a manhunt. Maybe word of my escape had yet to reach them. I headed for Left Luggage.

We were called economic terrorists, threatening profits from high-cost, highyield, terminator-gene strains that would feed the world and soak up excess CO<sub>2</sub>. But we just wanted tasty vegetables from our own gardens, unusual

purple carrot. Serious action only came when self-propagating super-plants were found growing by a road in Norfolk.

“Businessmen don’t understand that biology is a lot messier than digital copying,” ‘Percy’ had said as we talked in her potting shed. “There’s a dozen perfectly natural ways the terminator gene might have failed. One cosmic ray taking out the right base pair would be enough!”

But scientific sense was never going to stand up to irate politicians shouting “Something must be done!”

Fines became prison sentences, the Seed Squads were established and we

were forced underground. Home gardens were no longer safe, so we became guerrilla gardeners — a secret society sharing seeds and planting contraband crops in public spaces.

We tended them at night or just scattered seeds far and wide to let nature take its course. That’s when the network started and we adopted our noms de vert.

We were too successful. Nature was indeed the great copier. Our wilder strains could fend for themselves and started to spread.

The gloves finally came off when the director of Smaxo’s agricultural division found a clump of illegal Afghan

Purple carrots growing at the bottom of his garden and carpeted the Prime Minister. Of course, ‘Monty’ and his catapult didn’t help.

Now the only guerrilla gardener left is me.

I collected my escape stash from Left Luggage along with Monty’s seed catapult. The wig, hat and glasses helped me slip past the tighter police patrols and onto the sleeper to Fort William. Locked in my cabin I shaved my distinctive beard and used clippers so that I’d match the fake ID in my stash.

The train would go through a lot of isolated country. The clean up crews couldn’t cover all that ground in one

season, so some of my seeds were going out of the window.

As for the rest...

There are islands off the Scottish coast contaminated by bioweapons testing from the Second World War. People are forbidden and there are no sheep or rabbits. But their climate is ideal. The seed catapult has enough range to reach them from a boat offshore.

Or I could land and make certain they’re properly planted. The seeds will do well on the islands, even if I don’t. In a few years they’ll become a reserve for natural, noncommercial diversity no matter what happens to me, the last guerrilla gardener.



# Art meets Sport

WITH IMPERIAL'S  
DANCE COMPANY



PHOTOGRAPHY BY DUNCAN MARTIN

PHOENIX







# D

ance is about creative expression. Dance can be narrative art and storytelling. Dance can be about structure, discipline and perfection in every detail, or it can be about improvisation, spontaneity and exploration. There aren't many forms of art that are so versatile or that so well illustrate the intersections between different types of creativity. Especially when the dancers themselves are also scientists and engineers. That's why on a bright but cold Sunday morning this May, members of the Imperial

College Union Dance Company gathered on campus to help create a photo-shoot for this magazine. From the historic backdrop of the Queen's Tower to the blue-glass mirrored exterior of the Faculty building, Imperial's campus — with its contrasts and contradictions — provided the ideal location. The dancers demonstrated graceful classical ballet poses alongside dynamic contemporary techniques. The images we created show how beautiful the different forms of dance can be. They also speak of the

strength, flexibility, balance and athleticism required, developed through many hours of dedicated practice.







# SCIENCE MEETS LITERATURE

DAVE CLEMENTS ON SCIENCE FICTION AND FACT



*Dr Dave Clements is an astrophysicist in Imperial's physics department and is involved in several ESA and NASA observational projects including the Planck mission. He also writes short fiction, and his hard science fiction stories have appeared in various publications including Analog Magazine and Nature Futures (see story on page 14).*

**Phoenix:** Where do you get your ideas, and are they inspired by your science?

Dave Clements: Where you get your ideas is one of the cliché questions people get asked, especially if you're writing science fiction. The answer is, ideas are everywhere. It's not that people writing science fiction are particularly good at ideas — it's taking an idea, a concept, and turning it into a story that's the hard thing. Some of it is inspired by

my research, some of it isn't. So for example, there's a story I had published in *Analog* that's set around a neutron star, I don't actually do any work on neutron stars but the basic concept of the story came while I was sitting in a seminar on neutron stars. But another one is the story I had published in *Nature*, *Last of the Guerilla Gardeners*, that arose from an art-science collaboration with Vanessa Harden from the Royal College of Art, who did an exhibit on guerilla gardening.

**P:** Do you find that being a writer, being a creative person, affects the research you do?

DC: Research is creative. The creative muscles used in research and in writing are much the same, you're just pushing them in a different direction, that's the way I feel it. You can say things in fic-

tion that you can't say in research, and vice versa. I think one of the things that motivates me, at least in the hard science fiction that I write, is that I'm trying to put a human scale, or human interaction into what I do research on. Because I'm an extragalactic astronomer, that makes putting it on a human scale rather difficult. But showing somehow that the vast distances, the vast gulfs of time involved, comparing those to a human span — that's what I try to do. And also, at some level, reflect the — how do I say it without sounding depressing? — the insignificance of us on cosmological scales.

**P:** What inspired you to first start writing?

DC: Reading. I guess the first thing I wrote that could be described as science fiction was when I was about nine or ten

at school. It's always been there in the background at some level. Sometimes it gets more attention, and now that I've got a reasonably secure position here, I'm writing more.

**P:** If you had the opportunity, would you give up your day job to be a writer full-time?

DC: I've thought about that. In the unlikely event that I do get some level of success with novel-writing, I think I would still want some connection to the real science. The two feed off each other, in my mind at least.

**P:** Which writers do you most admire, or aspire to be like?

DC: Who I admire and who I'd like to be like are somewhat different questions. There are writers out there, like William Gibson, or China Miéville,

“Research is creative. The creative muscles used in research and writing are much the same, you're just pushing them in a different direction”





who are just astoundingly good, and I could never be like them. But people like Al Reynolds, Charlie Stross, Paul McAuley, Stephen Baxter, they are more in the department of what I'm trying to do. But they've spent a lot more time building up their writing careers, and I've spent my time building up an academic career.

**P: Do you have any plans to write a novel for publication?**

DC: I am writing one at the moment, going through the revisions at this stage. We'll see how that goes!

**P: Why did you choose to write science fiction rather than another genre or more mainstream fiction?**

DC: I've been in the science fiction world for a long time. When I was a student here I ran the science fiction society, and from that I got involved in what's known as the science fiction

fandom. I've run conventions, and it's also what I read. But that doesn't mean I haven't got the ideas for some more mainstream stories, novels, floating around in my mind.

**P: What do you think about the "lablit" genre? Do you think that's going to become a big thing?**

DC: I've published a few things on the Lablit.com site. I know Jenny Rohn, who runs it, and I like what she's doing, but I feel she draws the line between science fiction and "lablit" a little bit too rigidly, and there's a lot more commonality between the two. The problem, at least in the UK, with science fiction is the old "two cultures", where frankly literature-based literary critics are scared of science. They can't tell what's made up and what's not. They don't like science very much, so they don't have a basis to understand it, and so they denigrate the whole thing.

**P: Do you think modern science fiction is becoming more literary, especially in the short fiction world, with places like Clarkesworld publishing work quite literary in style?**

DC: There's always a space for that. Maybe the fact that I've never managed to get anything into Clarkesworld demonstrates that perhaps they are more literary! There's always been a spectrum, with people like Jeff Ryman, who were much more literary than people like Arthur C. Clarke, even though they were writing at the same time. It's not a hard solidly delineated "you're one thing or the other" — there's a shading.

**P: What would you say was your proudest achievement as a writer?**

DC: If I was wearing my science fiction fan hat, it would be the *Analog* story [A *War of Stars*, published in *Analog* magazine]. But bearing in mind that I'm sitting in my office here at Imperial, it

would be the *Nature* story [Last of the *Guerrilla Gardeners*, published in *Nature*]. I came this close to having my *Nature Futures* story in the same issue that I had a paper that I co-authored. Unfortunately we didn't manage to swing it, but that would have been fun.

**P: Finally, what advice would you give to students or young scientists who want to combine writing or other creative pursuits with a scientific career?**

DC: Keep doing it. Writing, whether it's a scientific paper, a piece of fiction, a nonfiction article, or a lab report, the more you practice communicating in the written form, the better you will get at it. I imagine that's also true for visual arts, for acting, for, well, for doing science! If you want to do something, you get better at it by doing it. Not by reading about doing it, not by watching movies about people who are doing it, but by doing it. So keep on keeping on.

“  
I came this close to having my *Nature Futures* story in the same issue that I had a paper that I co-authored... that would have been fun  
”

Photography from the Urban Sputnik project, an art-science collaboration with Imperial's Astrophysics group.

[urbansputnik.com](http://urbansputnik.com)

Photos courtesy of Vanessa Harden





# A WALK IN HYDE PARK

by Evangelos Venieris

How calm the gladsome branches  
in the solemn breeze that stirs  
the untenanted silence of the footpaths  
that slink away from the engines' clamour  
to a wild patch of grass  
in deep oaken shades!  
H to He,  
and my shadow absorbs  
whichever frequency dare fall  
into its cavernous black-hole.  
That same shadow trails my steps,  
slung as a seditious aura  
of sedation  
of figurative mechanical motions  
of circuitous circulating inhibitions  
as if some mercurial potion  
sought to release its portents  
to the unsuspecting air,  
to the astonished ghosts  
that in the foggy hours  
cluster like frayed electrons  
around the magnetic pull  
of a life-brimming meadow  
whose edges, held to place  
by unseen dwarfs heavily  
heaving the burden of the sky,  
are electrified with the strange reactions

“The main inspiration for my poetry is and always has been an innate yearning for freedom, whether it be lodged in world mythology, in the silence of the forest or in the energy of a rock band, as well as the endless possibilities of language, which, if correctly wielded, may open the floodgates to the blurring of all known boundaries between reality and the imperceptible.”



“My name is Evangelos Venieris, Evan to friends. I completed the EEE MEng degree at Imperial College and have recently started a PhD in the field of sensor array communications in the same department.”

of cells breathing in unison,  
of pores singing dioxic songs,  
of radiation scorching untrodden carpets,  
and high aloft on full and plump clouds  
a fortress proud and tall,  
towers and wide gates  
that inebriate with mesmeric legends  
of obscure rivalrous destinies  
are set up in quantum leaps by the giant hands  
of some atemporal subspectral  
power of imagining.  
And with the ambitions of crumbling empires  
dying in the distance,  
I keep measuring my shadows  
stemming from an oaken frame  
as I still plod the silent footpaths  
in a giddy mood  
the heaven's wines invoked  
with persistent libations  
from the subconscious crevices  
the ground and each consecutive heatwave  
unseal in their maddening  
and violent full bloom  
as they summon the fluttering of unwinged  
scents of revolving roulettes of seasons,  
painting quaint vignettes  
of the fleeting dream  
that was Spring.



# hands

by Denis Hyka



Denis Hyka is from Albania and currently works for Imperial College in catering.

“I started to draw and paint when I was in kindergarten. Since then it has always remained as a hobby, with a desire to do and create more, and I'm always trying to stay true to my style hoping to reach a wider audience.

I like to draw hands and bring them into focus as they play an important part on the way we express our feelings in different situations. In this drawing I wanted to capture some fleeting moments of different people while focusing on their hands. With their strength, elegance, shapes hands say a lot about someone's personality.”

# TRUTH

by Cosmin Badea

Truth  
Can be most painful  
Right when it brings the end  
Of the belief in evil.  
Right when it brings the death  
Of cruelty.  
Because it suddenly uncovers  
The cruelty  
That you allowed to be born  
Believing in evil  
And to trickle down  
As burning tar to hurt  
All the open heart  
Which won't close, depart,  
Till it brings about  
Truth.



# DAWN

by Cosmin Badea

I know that life is but a dream  
That never comes again  
And some just want to set their hearts  
Aflame,  
But all I wanted was to keep  
To keep us two alive.  
Before it ends and we wake up,  
Before the dawn,  
I look around, I seek inside,  
But find I die alone.



# FAITH

by Arthur Fox



Arthur Fox is a 4th year MEng Computing (Games, Vision and Interaction) student, and will be starting a graduate job at Sony's London Studio after his degree. His interest in games has always been predominantly on the creative side: gameplay, design, music and story, and in order to explore this he took Music Technology and Creative Writing as humanities options in his final year. Faith is an extract from one of the pieces he submitted for the Creative Writing course. It was inspired by his insatiable curiosity about mythology and a desire to humanise the Gods, with a view to expressing their struggle in gathering followers in our modern society.

“

Back in the Golden Age, Hades always had first pick of the most interesting people, he was so down with pop culture...

”

“I'm bored! This just isn't fair, humans suck!”  
“Now, now my dear, calm down, there's no need to be upset. You know your father has been formulating a plan for some time now, we'll get over this slump.” Hera smiled at her son across the table; it was a very comprehending smile.

“It's just, I don't know what to do with myself, mother. Before, when I wanted entertainment I just started wars or killed things. The Spartans loved me for it! Do you remember that time I came down and slew the Ekhidnades — it was

awesome, there was blood and gore everywhere!”

“Be patient son. You know the saying 'patience is a virtue'; well your father invented it. It was through it that we earned our place here to begin with — without it Olympus would still be ruled by that oaf Kronus, I mean could you imagine that?”

“True, from all I've heard grandfather must have been a real bore.” Ares lifted his chalice off the table and took a swig of the violet liquid. Glancing down at the ground he spotted his spear lying there lifelessly, the once golden weapon had now turned a dull shade of copper.

“But still, what's it all worth now? Look at this place, it's in ruins! I'd rather

be in Eden — even after Eve ate that damn apple!”

Ares was right. Olympus was a mess. The once crystal blue waters that had run through the Acropolis were now a misty grey and the fountains that had once showered the lush fields were barely able to form a dribble. Hera remembered how the grass had once been so vibrant and green that even Yaweh had commented on it. “The grass is always greener on the other side,” she had sneered. Of course, Hera knew very well that it wasn't, nobody's grass was as green as theirs. But those days had long passed, now the grass was patchy and in some places wilted. Mother Nature had far better gardens to tend to.

Ares looked up at the dilapidated columns and sighed. “They used to reach so high you couldn't even see where they ended. I remember racing Hermes to the top — of course he cheated and used his sandals.”

“Ha! I remember that day. You kids were always up to mischief.”

“What's he up to now, mother? I haven't seen my dear brother in centuries.”

“Well you know what Maia and those Pleiades whores are like, his mother never gave him the guidance he deserved. I heard he travelled East, got himself involved with Vishnu's lot. They have so many deities over there that he was able to slip in without any-

ILLUSTRATION BY KEN SRIMONGKOLPITHAK

one really noticing. I've even heard he's having an affair with one of the Devas. I'm happy for him.”

Hera paused for a second, and pondered about what it would be like to move away herself, start afresh, meet someone new and fall in love all over again. The thought excited her, but then came that same old realisation, here she was Queen — if she left she would be a nobody.

“Now that Hermes has gone, poor Hades has nobody to guide all the souls to the Underworld,” she continued, trying to distract herself. “Although it seems that few want to go there nowadays, most are heading to that dreaded place Satan calls his home. Have you been?

It's vile! The flames aren't properly looked after and they don't even allow pets in, poor Cerberus had to wait outside when we visited.”

“Hades was so upset when we left,” she sighed “Not because he couldn't afford all the glamour, flashing lights and bohemian lifestyle that Hell offered — he was never into that kind of décor, he preferred the more traditional haunted look he gave the Underworld. No, it was the sheer volume of people that saddened him. Back in the Golden Age, Hades always had first pick of the most interesting people, he was so down with pop culture.

“Even when Cerberus did that trick where he licks him with all three

tongues at once it still didn't cheer him up. I think... I think I may have even seen him shed a tear for the first time.” A high pitch squeal escaped her lips as she struggled to contain herself.

Ares stood up and rushed over to his mother, his bronze armour squeaking like a rusty bicycle chain. He wrapped his arms around her, squeezing them tightly.

“Don't cry mother, I'm still here for you.”

These past couple of millennia had been hard, so many had deserted their ranks. But they couldn't leave. They ruled Olympus. If they left what would there be?

“We are strong,” Zeus had reminded

them. “We have beaten our forefathers and we will rise again” — he just needed to think up a plan. Centuries had passed and he had yet to formulate one.

“Oh, we were so happy back then,” sobbed Hera. She remembered sitting by Zeus' side. He was the man of her dreams, so strong and wonderful, her lover and her own brother! All those sappy humans had worshipped them unconditionally.

How things had changed. Zeus' once resplendent white beard was now straggly and grey. Hera wasn't one to talk either, her once soft skin had grown so hard and cracked that she had gone as far as removing all the mirrors from her room. Yet, the thought of Athena's

words provided her with solace:

“To earn their faith we must first have faith in ourselves.”

“Hey look on the bright side, at least we're not in Valhalla!” Ares exulted. Hera chuckled and a smile formed on her face again.

“I hear Valhalla is so empty nowadays you could mistake Odin for one of the statues! You know, apparently they're so short on Valkyries, that they've even begun accepting cross-dressers!”

Their laughter filled the air — laughter was always the best medicine.

“I love you son,” she said smiling. “At least we still have each other.”

“Love you too mother — yeah, at least we'll always have that!”



# AND YOU ARE NO SAINT

by Shoaib Rizvi



“I’m Shoaib Rizvi, a 3rd year medical student at Imperial. I am no miracle and you are no saint is a mixed media self portrait created by combining different doodles I made throughout the year. It is an introspective look at my experiences with two different worlds and how they come together in my mind.”

# soap

by Emilie Sylvia Stammers



**B**eing a bar of soap is far from a glamorous life. My home is a dish encrusted with slime from my predecessors, placed next to a bath covered in grimy tide marks. My companions include the forlorn-looking sponge, the snooty shower gel and the toothbrush, who appears to be in a state of permanent shock. I can’t say I’m surprised: the human mouth must be a disgusting place, if their feet are anything to go by. The only bathroom implement worse off than me or the toothbrush is the toilet paper. No wonder he always looks

so pale. He doesn’t talk to us much. I wish he did, because that might shut the shower gel up. He’s always lording it over us because he cost more and apparently smells nicer. But am I the one who contains chemicals blamed for causing cancer? No! That shut him up nicely.

Humans are stupidly obsessed with being thin, I noticed the other night as one of them peered into the toothpaste-

spattered mirror to examine herself. Us bars of soap get thinner with every passing use, but this is far from a good thing. It means we’re dying. Once we get too thin, we are thrown into the bin which lives underneath the sink, to join the empty bottles and bits of wet cotton wool. I’m not sure what happens after that, but I have heard rumours to do with burial and burning.

I try to escape from the sweaty grip of human hands by exuding a slippery foam, but they are not deterred. They simply grip me more firmly and continue to clean themselves. That’s surely the worst part of being a bar of soap, but they’re merciless. Damn, here comes one now.

Not shower time already, surely? Crap.

“Emilie penned the above for a friend’s band. Emilie was a fellow cupcake worshipper, particularly of the hummingbird variety. She was oft-clad in colourful tights; a niche she dominated firmly pushing me out early on. I’m convinced words were what rushed through her veins, often spilling out as a well put-together blog post, Felix article or who knows what else. One memory which sticks is from an ecology lecture, where we were asked to think up of an analogy for scramble competition. On the spot, without a moment’s hesitation, Emilie created a scene of women fighting in the Boxing Day sales. This mistress of metaphor is sorely missed by oh-so-many and her sweet-kindness will not be forgotten.” – J. Humphries



# MUSIC

# MEETS

# PHYSICS

**RYOTA ICHINOSE** TALKS ABOUT HIS DOUBLE LIFE AT IMPERIAL AND THE ROYAL COLLEGE OF MUSIC



“ You're developing your artistic and your analytical mind at the same time, and I believe in the future that will help me. It gives you an edge ”

*Ryota Ichinose is a violinist and a final year undergraduate on the 4-year BSc Physics and Music Performance programme, taught jointly by Imperial and the RCM. He told us about how he balances two demanding disciplines in the same time most of us take to study one subject!*

**Phoenix:** So you're a student on the joint Physics and Music course at Imperial. That's quite an unusual combination to study. Can you tell me a bit about why you chose it?

Ryota Ichinose: Well, the violin has always been a big part of my life. I started playing when I was five years old, and it helped me a lot as I grew up. For example, when I first came to England, when I was ten, I couldn't speak any English. But when I played the violin, I could get some respect from other people. I wasn't just this person who can't speak English. So the violin's always been part of my life. In terms of physics, I've always excelled at physics during school, I really enjoyed it. So when I heard about this course, it just seemed perfect.

**P:** Has it been difficult to find the time to devote to both music and physics?

RI: To some extent, yes, because physics itself requires sole concentration, so when I'm revising for physics exams I don't practice much violin, and when I'm preparing for a music exam I don't do much physics. At the RCM [Royal College of Music], I have to compete with people who study solely music, who practice about 8 hours a day, and that's something I just can't do because I don't have the time. So it is difficult, yes.

**P:** Do you have any plans for when you finish your degree? Do you want to continue with music, or physics, or try to combine both somehow?

RI: I'm going on to a Masters next year, but in nanotechnology, which is kind of unrelated to music. I chose it because of my final year project, which I really enjoyed. I do think it's a bit of a shame that I won't actually be studying music any more, but I won't just quit the violin. I'll try to join some orchestras, or maybe even organise some solo concerts if I can.

**P:** Did you consider doing postgraduate studies in music?

RI: Well, if you want to become a professional violinist, that requires a lot of

practice, and despite the fact that I really enjoy playing the violin, and I actually enjoyed preparing for my last violin exams, I don't think I can live under that kind of stress for my entire life. So no, perhaps not for me.

**P:** Do you ever find it difficult to switch between the very logical and analytical kind of mindset you need for physics, and the more expressive and creative musical side?

RI: Yes, I find that I have difficulty in interactions with friends at Imperial — because their brains work so logically, sometimes I can't convey my musical and artistic thoughts to them. And it's actually vice versa with music. In music lessons, some of the things they say are more about feelings than logical thought processes, and how you can use music to convey those feelings. With physics it's more about logical steps, one after another. So they're very different.

**P:** Can you tell me a bit about the course, about how much time you spend on the different aspects of it? Is it about 50/50 between physics and music?

RI: In the first year it was mainly phys-

ics, but as you progress it gets to be more and more music, and I believe this year it's 70% music and 30% physics. It's actually quite tough, because you're essentially doing two bachelor degrees at once. I complete all the usual physics modules that a BSc student would do in three years, but for me it's four years because of the music. So time management is really key.

**P:** So is it a good course? Would you recommend it?

RI: I'd definitely recommend it. If you're like me, if you work harder you feel better about yourself afterwards. And you're developing your artistic and your analytical mind at the same time, and I believe in the future that will help me in some ways. It gives you an edge basically, because not many people have that sort of background.

**P:** It is quite unusual. Do you feel there's any connection between the two things? Does being a musician make you a better scientist in any way, or does being a scientist make you approach your music differently?

RI: I think there have been studies that often found that people who are good

musicians are also good mathematicians. But I haven't really thought about it to any deep extent. But there's some kind of connection there, maybe.

**P:** Who's your favourite composer, or favourite style of music?

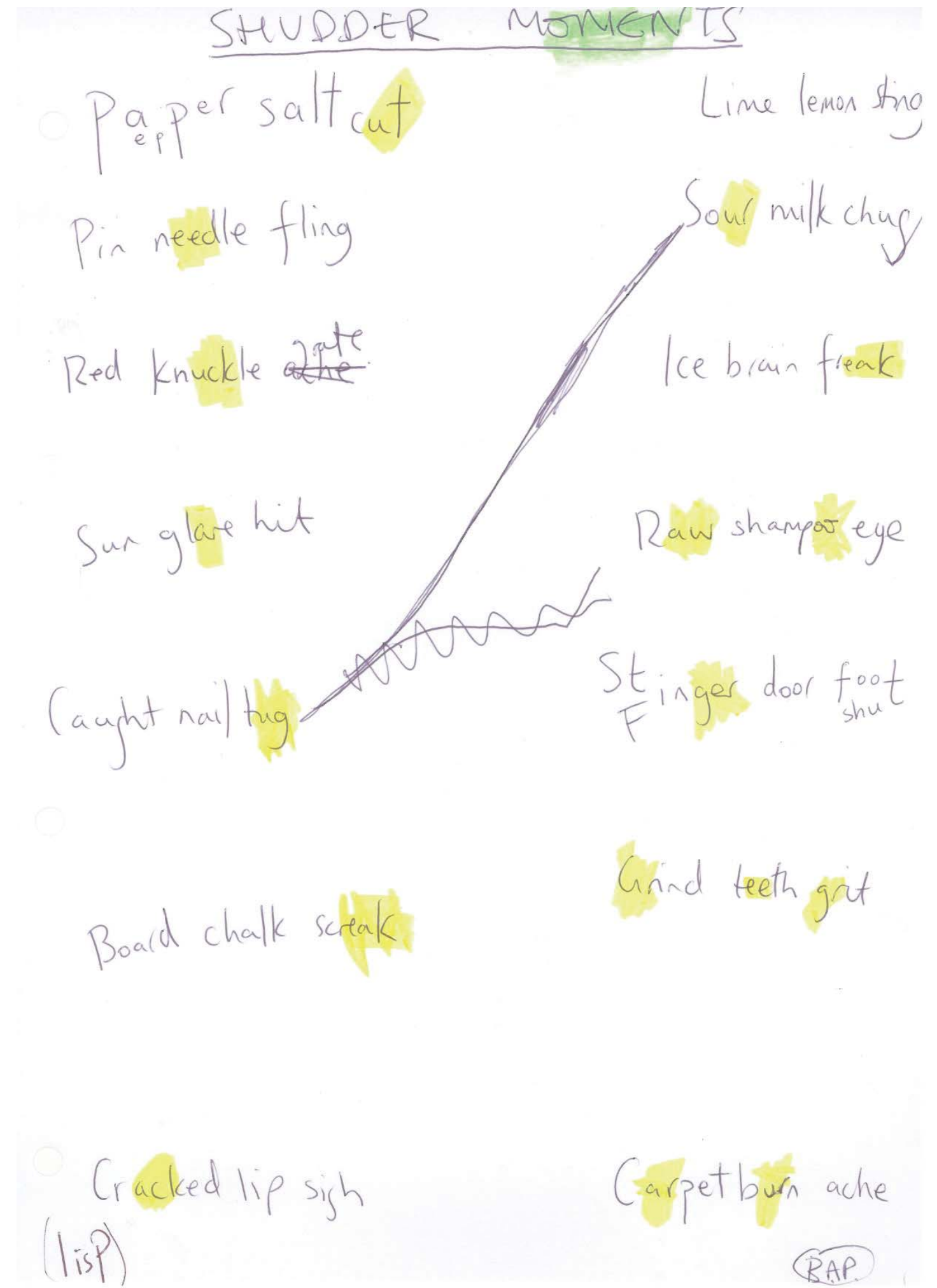
RI: Within the framework of the kind of classical music you learn at the RCM, I'd say I like the Romantic music the best. I regard myself as quite an emotional guy, I like conveying my feelings when I'm playing my violin, and I like it when other people do that too. So that's why I find the modern stuff a bit pretentious. But I listen to other kinds of music as well.

**P:** Do you think Imperial's a good place for people interested in arts and music? Do you think there's a good community for that kind of thing?

RI: If you regard music as a hobby, not a profession, then Imperial provides a good environment. You can have a lot of fun. There's a very good symphony orchestra, which I'm a part of, and I think it's been rated as one of the top in the UK, some time ago. I think Imperial has the most societies out of any universities in the UK — there's lots of stuff going on!

# shudder moments

by J. Humphries





# fairy cakes

by J. Humphries

Soull bits unful in flour mist,  
abound the bowl,  
sugar crush bozpectacted,  
pelched atop the <sup>herry</sup> current tops,

spirit flecks twist n' swirl  
abound the bowl,

butterly toil be ~~smir~~ched,  
sinking beneath the egg drops,

sifted, stirred, enfolded so,  
bun tray a <sup>d</sup>ropped,  
broken, risen and cooled so,  
spirit, soull (hopefully) settled &

(isp)

B.A.P.

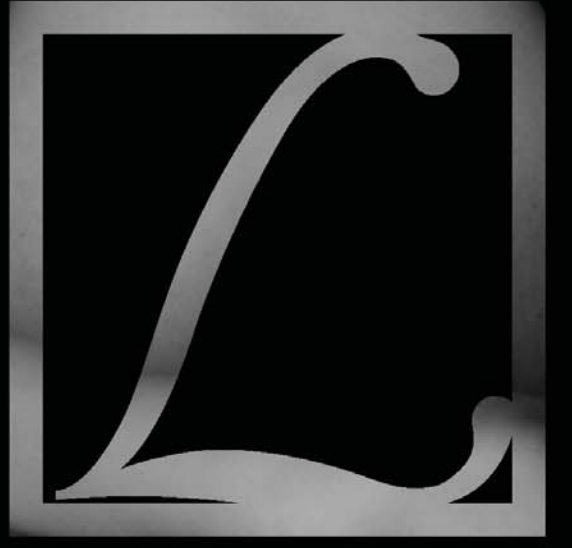


by J. Humphries











## Sign up for our pilot Skills Workshops



Imperial College Union will be launching a volunteer accreditation scheme in the autumn to support our volunteers to develop key skills that will assist them in their volunteer roles.

Part of the programme will include six skills based workshops, four of which must be participated in to achieve an accredited award.

We will be piloting the below

workshops in late June and would like to invite students to participate in them, providing feedback on how they could be improved. For volunteers who would like to participate in the programme from the autumn, they can include any workshops attended now towards their accreditation.

All students will be given a £10 Union Shop voucher for each workshop attended in acknowledgement of their time.

**Introduction to...Planning & Organisation skills** Thursday 20 June, 12:15 – 14:00, Beit Quad

**Introduction to...Communication skills** Friday 21 June, 12:15 – 14:00, Beit Quad

**Introduction to...Effective Team Working skills** Tuesday 25 June 17:30 - 19:15, Beit Quad

If you would like to attend any of these workshops, please e-mail Nick Snow, Student Development Manager (n.snow@imperial.ac.uk) specifying the workshop you would like to attend. Places are limited.

## Union Survey - closes Wednesday 12 June

**FOR FIVE MINUTES OF YOUR TIME YOU COULD WIN AN IPAD MINI & MORE GREAT PRIZES!**

The Union Survey is your chance to let us know what you think about the many services that we run and provide. The survey only takes a few minutes to complete and helps us understand how to make your Union better for you.

Take the survey online at [imperialcollegeunion.org/survey](http://imperialcollegeunion.org/survey) and you could win one of the following prizes:

- An iPad Mini (WiFi 16GB Black)
- 2 x £20 Union Shop vouchers
- £50 of Summer Ball drink tokens!

This is the third Union Survey we have run and already we have made big changes as a result of your feedback. Our 'You said, We did' campaign highlights the changes we have made. Some of those changes include:

- Introduced great monthly drinks offers our bars
- Started selling healthy snacks in the newsagent
- Improved the speed of eActivities by moving it to a new, faster, server
- Launched new nights in Metric including our new indie night Indigo
- Started hosting sexual health clinics on campus with free STI testing
- Introduced new monthly offers in the shop on stationery and clothing
- Regular visits to other campuses including Hammersmith and Silwood
- Launched a new, easier to use, comments and complaints procedure
- Started our Stress Less campaign

**DON'T FORGET, THE UNION SURVEY CLOSSES THIS WEDNESDAY!**

This really does help us to improve everything we do, so help us keep improving for you. We will be selecting winners at random for the prize draw and announcing them online.

[imperialcollegeunion.org/survey](http://imperialcollegeunion.org/survey)



# Stress LESS

**EVENTS THIS WEEK**  
[imperialcollegeunion.org/stressless](http://imperialcollegeunion.org/stressless)

**BOXFIT**  
**Thursday 13 June, 12:00-12:45 and 16:00-17:00**  
**Free**  
**Queen's Lawn**

BoxFit is a great form of exercise, a high intensity workout and a fantastic way to lose weight. It helps develop your overall strength as well as balance and dynamic flexibility, also improving stamina and coordination. A great way to get all that frustrating stress out of your system.

In case of bad weather BoxFit will be held in Court 5, Ethos.

## VOTE FOR EACH MONTH'S GUEST ALE FOR FIVESIXEIGHT AND THE UNION BAR

Go online to see the latest choices and vote. The winning ale will be announced online and sold in the bars the following month.

[imperialcollegeunion.org/realales](http://imperialcollegeunion.org/realales)

[imperialcollegeunion.org](http://imperialcollegeunion.org)





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# MUSIC

# Review: Shampoo Boy

Ross Gray explores Peter Rehberg's dark new collaboration

**B**lackest Ever Black, the aptly named London label that has been grabbing attention with crushingly dark electronic releases for the past few years, seems like an ideal home for Peter Rehberg (PITA, Editions Mego head), Christina Nemeč, and Christian Schachinger's new project **Shampoo Boy**.

One for fans of drone of all kinds and dark ambient, **Shampoo Boy's** improvised debut *Licht* can be seen to further Rehberg's work in **KTL**, where dark atmospherics were dominant but the instruments and sounds were largely kept tightly contained. *Licht* consistently feels as if it is pushing the limits of the equipment it is being played through, like control could be lost at any second and the work descend into unrestrained screaming noise reminiscent of **Merzbow**. There's a sense that the distortion of these ominous, unrelenting drones could escape and envelop the soundscape completely at any moment.

*Licht* manages to balance the quiet

and the extreme to great effect constantly throughout. I often hear discussions of how noise music and ambient music are two extremes of the same scale, and are just different manifestations of the same musical aim. This can be heard throughout this album; there are moments of full-blown PITA style glitch – never rhythmic, always droning – over prolonged, distorted guitar tones followed by ambient, somewhat soothing passages. This contrast is most prominent in the moments where there are some sounds pushing the machinery to its limit (as mentioned above) whilst, simultaneously, others could have been pulled from music written by **Steve Roach** on a bad acid trip.

These sections flow into each other continually and smoothly, somewhat aided by always holding one instrument at a lower level; no matter how much the guitar or electronics are screaming, there is almost always some softer, ambient slow textures happening underneath the top-level intensity. This makes the noise more accessible, having a soft melody un-

derneath the abrasion that can easily be grabbed onto. It reminds me of **Prurient's** use of piano and strings underneath crushing noise, adding an element of euphoria to the piece.

It is difficult to get through a description of this album without drawing comparison to Rehberg's work with **Stephen O'Malley** as **KTL**, especially as upon holding the physical release you immediately see that the minimalistic artwork is credited to O'Malley. *Licht* opens with menacing guitar and bass drones and these continue fairly steadily throughout, varying from nearly **Sunn O)))**-level deep resonance to barely detectable whispers in the ambient sections.

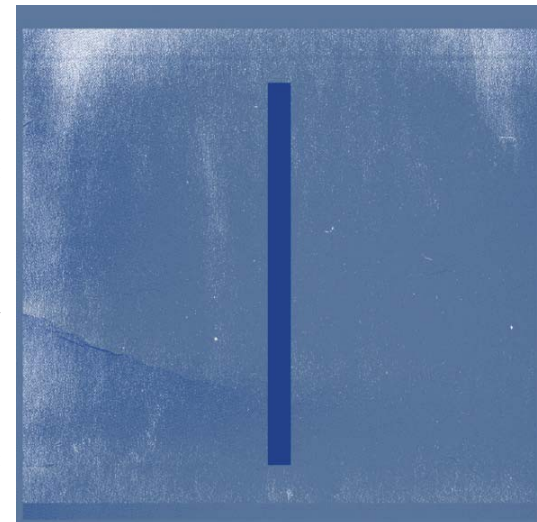
It strikes me as somewhat odd that some of the elements that seem to have carried over from **KTL** would, you'd think, have been due to O'Malley's work. That said, a hefty amount of the soft electronic fuzz borrows heavily from Rehberg's earlier work and the prolific output of **Editions Mego**.

Despite the inherent euphoria held in some parts of the album (especially the parts most informed by Mego), it

is fairly dark and ominous through the duration; the quieter moments where one might begin to take on an optimistic mood are crept upon by foreboding, uneasy sounds, as is implemented particularly well in 'Still'. Reviewing this on a sunny summer day instead of huddled over in a depressed hump in the dead of winter feels like somewhat of an insult to the work, but it does make for prime late night staying at home music.

There's a remarkably diverse range of timbres to be found within *Licht* and I may have undersold this by just focusing on the parts that grabbed me most; whilst the work remains thematically related throughout, this is not achieved via consistently using the same sounds, but rather through the full incorporation of this threatening undertone at all times. That is perhaps

the most important way this stunning debut manages to keep an air of unease and discomfort at all times; the constant threat of something worse. This album is yet another triumph for the already incredibly strong set of Blackest Ever Black releases this year, further emphasising their reputation for being able to find some of the most chilling music out there.



## Album Review: Palms

Riaz Agahi

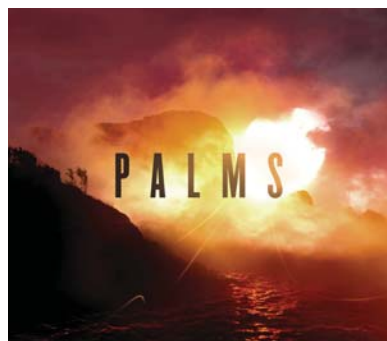
Music Editor

Released on **Mike Patton's** Ipecac label, *Palms* sees 3 members of **Isis** join Chino Moreno of **Deftones** fame, making an album whose sound is somewhere between the two. Where Aaron Turner's inscrutable vocals on esoteric, often philosophical topics (*Panopticon*) or abstract concept albums (*Oceanic*) gave Isis an ethereal quality, *Palms* has the more clear-cut and emotive singing of Chino Moreno.

It appears that the delivery of the Isis members has taken a bit of a page from Deftones and in doing so creates something unique in the back catalogues of either group.

To put it more plainly, the album has roots in the past materials of both Isis and Deftones, but brings both into new ground. It could then be that this album has appeal to both fans of Isis and Deftones, as well as people who are unfamiliar with either.

Specific highs include the album ender 'Antarctic Handshake', which is an epic musical journey lasting almost ten minutes. Perhaps this choice shows my assessment of the album, as this work would comfortably sit somewhere in the Isis discography. Like many of their fans, I just really like Isis, and tracks like 'Antarctic Handshake' or 'Shortwave Radio' deliver the interplay

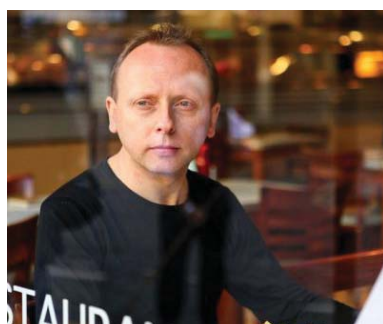


of drums, bass and guitar that characterized Isis. Sometimes dismissed as hipster metal, Isis' albums always received a large portion of critical recognition, especially alongside many diverse projects within post-metal. This project, however, represents a movement into rock territory.

Particularly moments in tracks like 'Tropics' seem to be informed by a pop sensibility of sorts. As with any die hard fan of either band, extensive listening is required to appreciate *Palms* in spite of the greatness of old work. *Palms* takes the form of an emotive album where Moreno's vocals are the key centerpiece, compared to being treated as simply another instrument as in Isis. It does seem, however, that *Palms* is a great album in its own right.

*Palms' self titled debut comes out 26th June on Ipecac Records*

## BE SURE NOT TO MISS



**Scanner: The Haxan Cloak**  
Bishopsgate Institute  
Saturday

**Scanner** opens a collection of sound installations inspired by **John Dowland's** 'Lachrimae'. He will be joined by purveyor of orchestral doom and multi-instrumentalist Bobby Krlic (**The Haxan Cloak**), who will be presenting a new piece of music also drawing heavily from 'Lachrimae', as well as some works from his 2013 album *Excavation*.

I'll be jumping on the chance to see an original work performed live by **The Haxan Cloak**; especially at £5 for students. The night also features inventive audiovisual installation from **The Computer Junk Or-**



**Oren Ambarchi Presents**  
'Knots' with Strings  
Cafe Oto  
Wednesday

**Ambarchi** provides a solo live performance with a twist at Cafe Oto. He presents 'Knots' the epic centerpiece of last year's *Audience Of One* along with frequent collaborator **Joe Talia** on drums and a large ensemble that includes **James Rushford** on cello among many other performers. The 30-minute-plus piece builds and decays through various themes and its interpretation by a large ensemble promises to provide some interesting moments. If all that isn't enough, there's also the premiere live performance from **Mark Harwood's** *Astor* project.



**JJ Doom**  
Fabric  
Thursday

Fabric and Red Bull Music Academy team up to bring the infamous masked New York rapper **DOOM** back to the UK, in a live showcasing of the **JJ Doom** project with **Jneiro Jarel** on Thursday following the release of their critically acclaimed debut album, *Key To The Kuffs* last year.

Heavy support provided by everyone's favourite Californian exile and prominent Dublab member **Kutmah**, alongside wonky hip-hop UK native **Bambooman**, who has been part of a recent movement to move found sound and field recording into more dance-floor friendly material.



# FILM

Film Editors: Katy Bettany,  
John Park, Lucy Wiles  
film.felix@imperial.ac.uk



# Let us all cleanse our souls

## The Purge

**Director:** James DeMonaco  
**Screenwriter:** James DeMonaco  
**Starring:** Ethan Hawke, Lena Headey,  
Max Burkholder, Adelaide Kane



John Park

Film Editor



Whether what this film suggests is actually feasible is an entirely separate matter – would an annual 12-hour period in which all crimes are allowed really help decrease America's crime rate and solve unemployment? During these hours even the emergency services do not respond, and it turns into a free-for-all *Battle Royale/Hunger Games* in which the population is given the chance to get all violence and hatred out of their system.

The year is 2022, and "The Purge" has truly turned things around, with the United States becoming a nation reborn thanks to this little cleansing process. James (Hawke) and Mary (Headey) don't take part in this ritual (as is their right), and traditionally hide out in their proudly fortified mansion, choosing not to get in-

involved, but fully supporting the idea of "The Purge". Their children Zoey (Kane) and Charlie (Burkholder) are a little too young, naïve and idealistic to fully comprehend the need for this yearly event (and to be quite frank, the audience won't be fully sold on this idea either) but it's the world they live in now, and they need to learn to deal with it.

So "The Purge" starts bang on time at 7pm with a loud horn signalling the beginning of all things criminal, and ends at 7am sharp, giving the public plenty of time to unleash the monsters within. Things seem to be going well for James' family, with the patriarch feeling confident that their state-of-the-art brand new security systems will keep out anyone who

rooms through the streets looking for trouble.

But having dumb, useless children is certainly this family's massive downfall. When their youngest Charlie sees a Bloody Stranger (Edwin Hodge – this is his credited character name) crying out for help, the kind-hearted idiot lets the man in. Turns out he's been running away from an insane gang of masked youths who are exercising their Constitutional right to purge. This gang means business, all of them wielding deadly weapons, dressed to kill, aching for some blood to be spilled. James' family has been thrown into this turmoil, and as these youngsters start a siege and an eventual home invasion, since their defence system re-

ally isn't all that great, they are left to fight and fend for themselves; as until 7am, there will be no help coming their way. Adding to this is another troublesome offspring of theirs: the daughter – and her boyfriend who snuck his way into the house for some mischievous action of his own.

Despite the initially intriguing premise of this annual ritual, the film doesn't actually spend too much time on having a closer look at the event itself. As is the case with all standard home invasion movies, the lights go off, there are many sharp corners, the bad guys are coming in from all directions, and the good guys are at a tremendous disadvantage. The build-up isn't so well handled, with very little and largely generic char-

acter development for the family dynamic. Headey is much less interesting here without her Queen Regent Cersei Lannister's sharp dialogue or costumes, and Hawke is as smoothly convincing as he always is, although he isn't allowed to give much range to his performance.

However when the blood-thirsty, psychotic gang does break in, it's all tremendously fun. It's intriguing to see what the ordinary citizens are capable of – when the beast is unleashed – to protect their families and this is what the film tries to explore. Hawke is fantastic when he brings out the demons, which is really what the film tries to explore – just to what lengths can a family man go to without betraying what he stands for? Both James and Mary are clear in the start that they're not a violent part of "The Purge", and it's interesting to see how dangerously close they get to the line they wish not to cross.

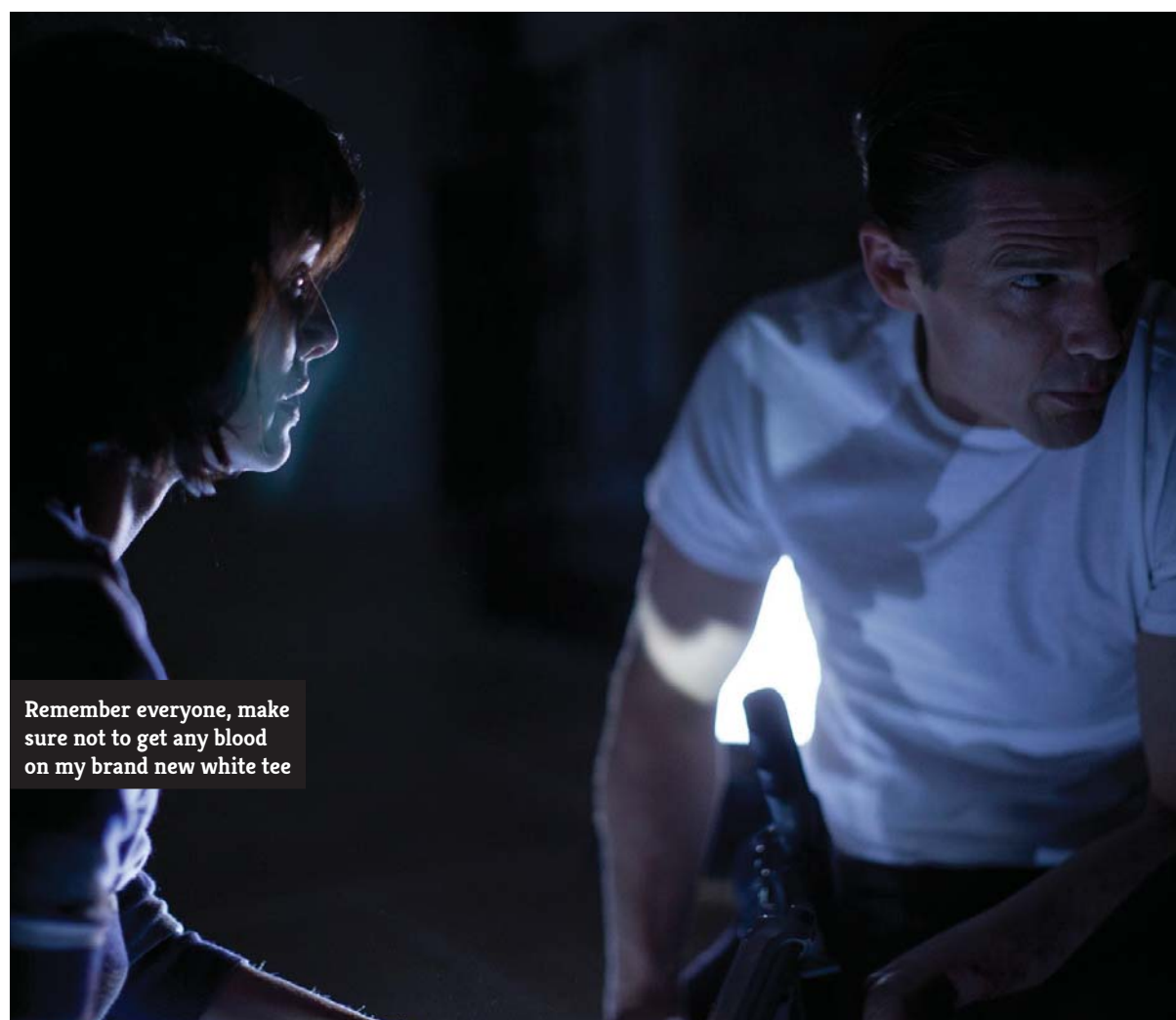
And it's this theme the film should have focused on more. But opting out of portraying depth and instead choosing to go down the easy route of simple violence and loud crashes and thuds, what it eventually boils down to is something familiar. It ends on an outrageous and somewhat hysterically bizarre twist, one that further confirms the film has very little character consistency whatsoever.



The latest botox treatments aren't what they used to be



Clowns used to be funny



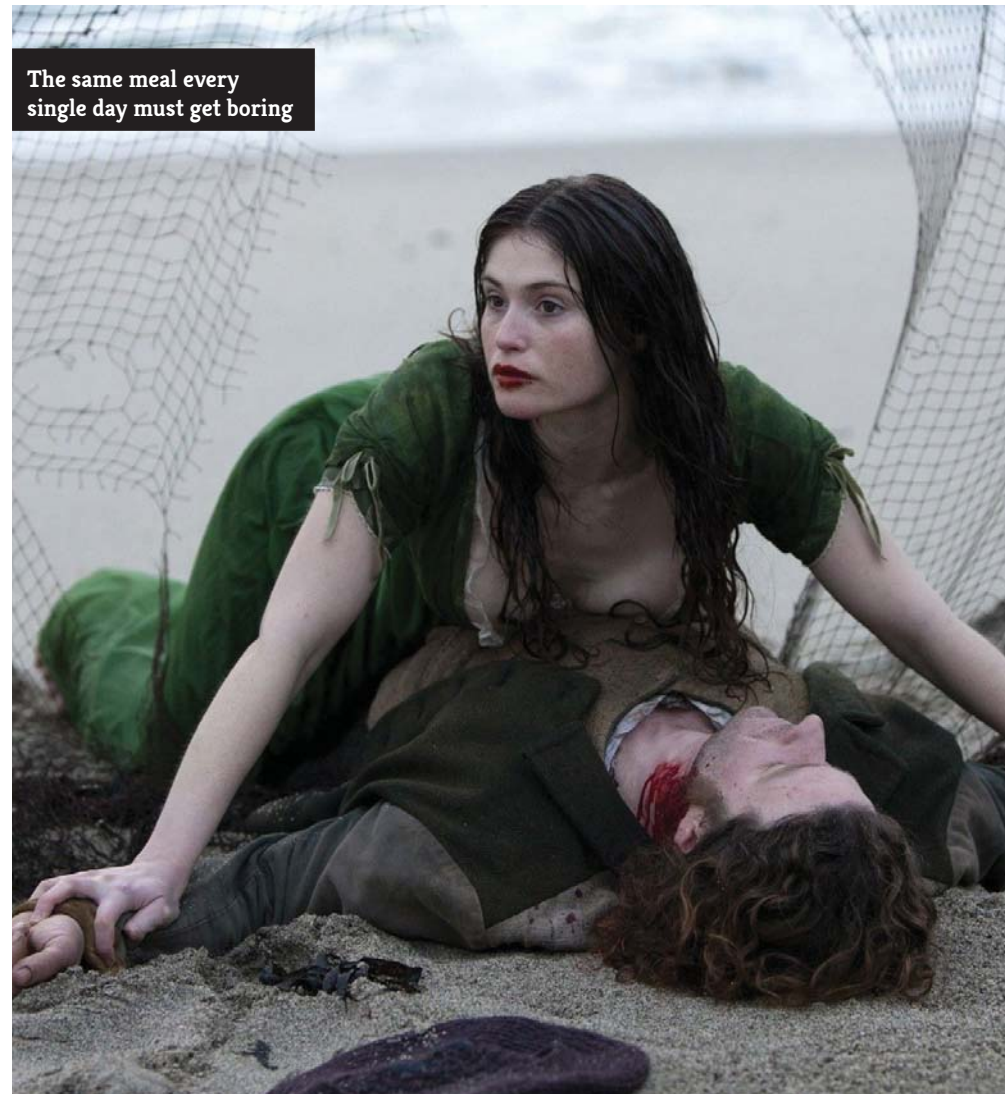
Remember everyone, make sure not to get any blood on my brand new white tee



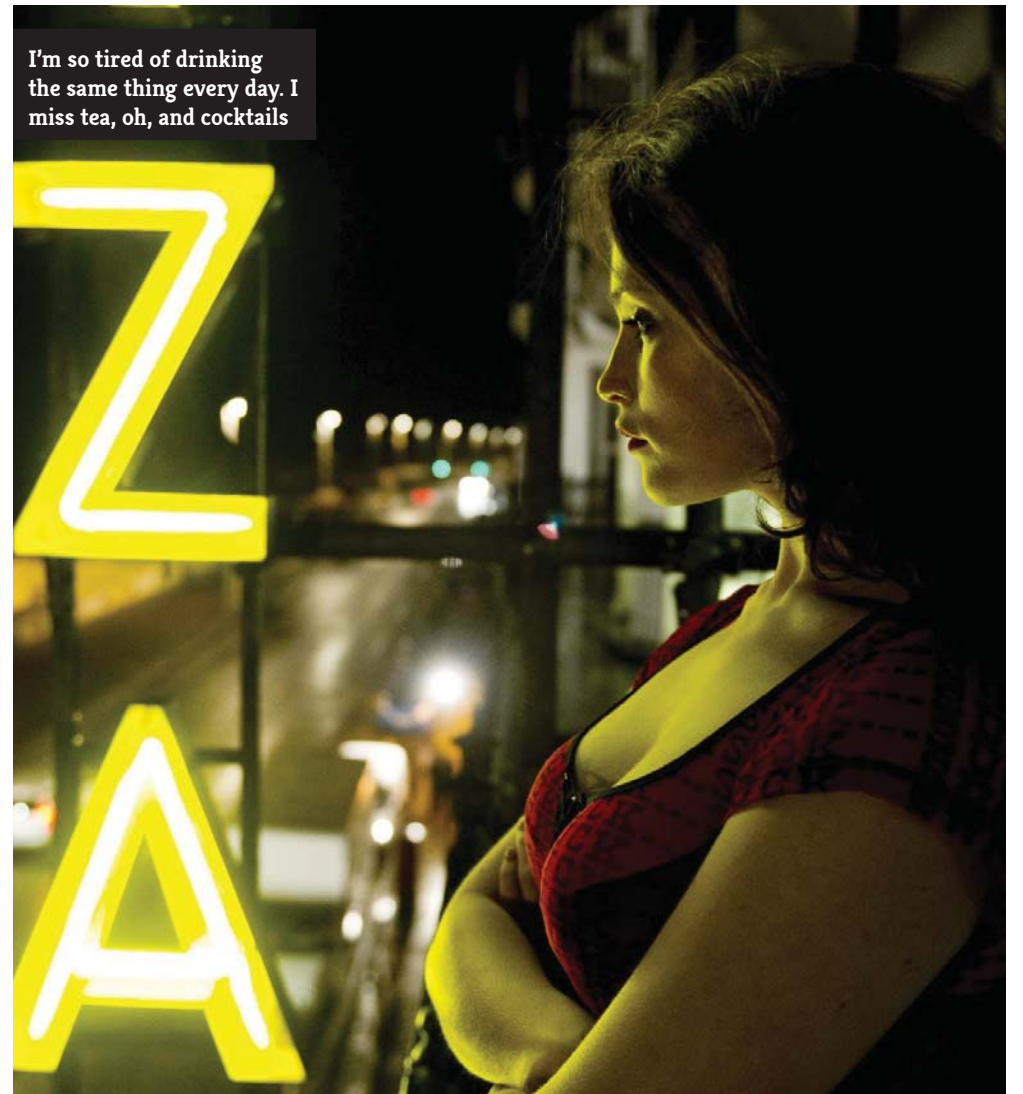
Film Editors: Katy Bettany,  
John Park, Lucy Wiles  
film.felix@imperial.ac.uk

FILM

# Sexism in the vampire world



The same meal every single day must get boring



I'm so tired of drinking the same thing every day. I miss tea, oh, and cocktails

## Byzantium

**Director:** Neil Jordan  
**Screenwriter:** Moira Buffini  
**Starring:** Gemma Arterton, Saoirse Ronan, Sam Riley, Jonny Lee Miller



## John Park

Film Editor

In this day and age when vampires of fiction are all-powerful, untouchable creatures, it's undeniably refreshing to have a more human spin on the ever popular genre. Plus it's an extra bonus point to not have to endure a cring inducing love subplot between an immortal and mortal – what we get here is something entirely different – a more patient, slow-burning approach to telling a familiar but not at all predictable story of supernatural beings we can't ever stop hearing about no matter what.

Eleanor (Ronan) is sixteen forever. She's a vampire, and is not allowed to discuss with anyone her little secret – her mother Clara (Arterton) forbids

this. So she must settle for writing down her thoughts and feelings as many diary entries, throwing them away into the wind or the sea. For reasons unknown to her, Ella and Clara are constantly on the run. Whilst providing the best for her daughter in the only way she knows how, by pleasing men, Clara is a loyal although at times, flawed protector, as with any parent.

Turns out the only reason these two are the most wanted vampires is because they're female. The vampire society puts a lot of importance on the word "brotherhood" and allows no women into their group. Since Clara and Eleanor were both created against the rules, they need to be removed. This explains Clara's paranoia, and the need to isolate themselves wherever they go, whereas with Eleanor, who is kept in the dark about most of this, doesn't understand.

For the past couple of centuries, Eleanor seems to have been a good, disciplined girl. Now she's finally getting the courage to stand up for herself and rebel (and about time, too). She meets a boy, joins some college classes, and soon the secrets start spilling themselves. And as she tells her story, we are shown, in many flashback se-

quences, just how everything came about.

Director Neil Jordan takes his time to give us the full picture – he knows how much to tell when, and more importantly, he knows when to make the cuts – leaving the narrative hanging. He doesn't give anything away too easily, and with this air of mystery and intrigue, this becomes a vampire film that's far more entertaining and smarter than the norm. The two parallel plot-lines here serve to further the two females' nature.

Arterton is absolutely spot-on as Clara; and winding the clock back to the 19th Century, we see the long, complicated and painful process she had to endure to end up where she is now – and even as an immortal she's failed to find peace. Arterton is loud, forceful and assertive, and has no problem tapping into the seductive side of her role given some very suggestive items of clothing she wears. But underneath all the confidence and tough exterior, there's an obvious inner layer of weakness and vulnerability. With no allies she is on her own to look out for her family. Very little kindness was shown to her all her life, so we understand her need for utmost control.

In contrast to her mother, Eleanor is a quieter, more restrained presence on the screen, one that Ronan captures beautifully. She's sheltered and naïve, qualities that make her budding, awkward romance with Frank (Caleb Landry Jones – who looks so pale he could well be a vampire himself) all the more sweet and charming. Over the years she too has found her specific ways to cope with her need for feeding, one that involves a more humane, sensitive approach. It's fascinating to navigate in their world, where vampires are incredibly similar to humans and really not a lot sets them apart.

There are several under-developed characters as the film is interested solely in Arterton and Ronan. Sam Riley in particular deserves more screen time given his significance to the overall plot, and his participation could have been enhanced for a more exciting finale that disappointingly ends on a bit of a flat note. Jonny Lee Miller lends his talent to play the vile antagonist, whereas Daniel Mays puts in an appearance to add a touch of comedy to the otherwise overall serious tone.

Because of its overall glum tone as well as its slow-burning approach to

tell its dense story, there will be limited appeal to young adults looking for a quick action fix. In fact there is very little in the way of fast, kinetic showdowns, but the film more than makes up for this in its unique way of portraying its vampires.



Was the answer 15 or 14. I can't remember



# FILM

Film Editors: Katy Bettany,  
John Park, Lucy Wiles  
film.felix@imperial.ac.uk

# You're gonna be populaire

## Populaire

**Director:** Régis Roinsard  
**Screenwriters:** Régis Roinsard,  
Daniel Presley, Romain Compingt  
**Starring:** Romain Duris, Déborah  
François, Bérénice Bejo, Shaun  
Benson

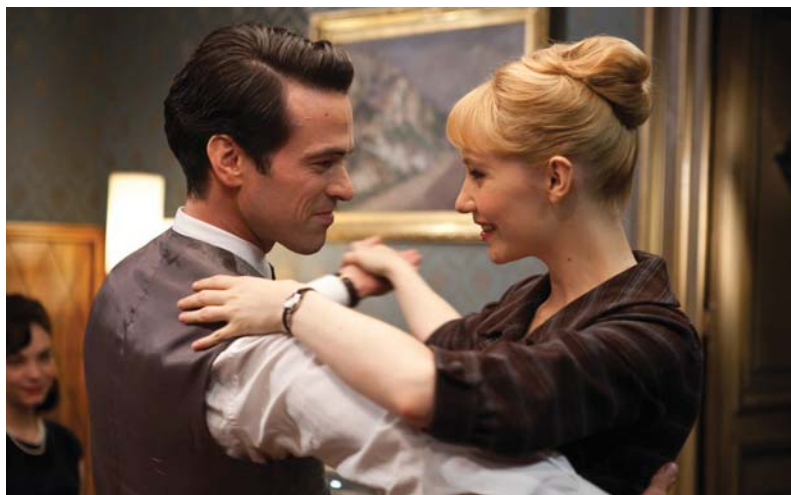


## John Park

Film Editor

Back in the day, it was every woman's dream to become a secretary; to assist and travel with powerful men, filing away important papers, typing up documents, taking calls and receiving messages etc. It was the best job any woman could ever dream of, and it would appear this trend was also in style in 1950s France.

Rose Pamphyle (François) is a very ordinary grocer's daughter who longs to work in the city instead of being stuck in her cold and distant father's market for the rest of her life. She travels to Normandy, filled with dreams all women of that era had, but with very little experience to qualify for the role, it's obvious she is way out of her league when she sees a long



line of bossy well-dressed know-it-alls applying for the exact same job.

The boss is Louis Échard (Duris), a charismatic insurance salesman, who takes one look at Rose and determines correctly that she's an absolute disaster when it comes to being a secretary. But then he sees her clicking away at a typewriter. The incredible speed at which she types, even when she's only using her index fingers, is something Louis notices instantly, and he decides he can do something with her amazing talent. And so after a brief misunderstanding where she assumes he wants sex out of her,

begins their hardcore training for a speed typing competition. She first needs to use all her ten fingers correctly, and then she's given numerous classic novels to type out word for word.

It boasts a wacky, farce-like premise, every bit as eccentric as the best French comedies, and with its effective period mood, and light colourful touches here and there, the film is incredibly successful in setting this up as an entirely believable and convincing scenario. It's incredibly entertaining, and never before has speed typing been seriously seen as

a competitive sport. When the various "races" get going, the regional, national, and eventually the international one, they are as tense as any race you can imagine. The thundering noise as the women furiously press down on their typewriters' keyboards, the surprisingly large crowd cheering and roaring their endless support, the sliding of every typewriter as they finish a line, and the changing over of the bits of paper, it's on a much bigger scale than what's originally anticipated. It's clearly a big deal in the *Populaire* universe, and the audience has no difficulty going along with the craze.

What finally happens between the two leads is hardly an element of surprise, nor is the overall result of the competitions. François and Duris have a natural charming chemistry, and their sugary-sweet dynamic is a part of what makes this highly watchable. Duris, as likable and amusing as ever with his icy cold exterior although actually warm and frothy inside, provides the perfect counterpart for François' clumsy, quirky and adorable village girl. The process of developing their romance cleverly touches on some more serious issues using its supporting cast to make the most of the well-rounded

ensemble. *The Artist's* Bérénice Bejo takes on the most prominent subplot, as Louis' childhood sweetheart who may or may not have had something between them. World War II and its aftermath is also an issue talked about here, something that further enriches the characters here.

Although everything is very well dressed up to look grand, pretty and perfect, the film is not afraid to hint at various underlying sadness and challenges each character needs to overcome to make their relationship work. For her, there's the quickly growing fame that surrounds her talent, one that gradually steals her away from having a normal life. Whereas for him, he has pressure from his family to be a better, more cut-throat and successful businessman, as well as trouble opening up his feelings.

Switching comfortably back and forth between well-measured comedy as well as engaging human drama that nicely strike a balance, here is an easily enjoyable, highly rewarding feel-good movie experience that deals with the most unexpected "sport". And for anyone who wants to argue that this isn't a proper event, watch and experience the sheer raw intensity involved with what goes into the world of speed-typing.

# Will this truly be "the last"?

## The Last Exorcism Part II

**Director:** Ed Gass-Donnelly  
**Screenwriters:** Damien Chazelle, Ed  
Gass-Donnelly  
**Starring:** Ashley Bell, Julia Garner,  
Spencer Treat Clark



## John Park

Film Editor

The last *Last Exorcism* certainly was not the "last" as it is followed by this pretty disastrous sequel that is somehow trying to bridge a gap for a potential third entry to turn the franchise into a trilogy – because any mildly successful horror series must at least have three.

Once again we have the same girl who's being pursued by a relentless demon that is determined to possess an innocent, pure body so that it can have its wicked, supernatural

ways. Yes, Nell (Bell) is having difficulties running away from her troubled past, in which she was forced into a part of a creepy satanic cult that ended with a botched exorcism (aren't they always?) followed by a twisted, demented birthing ceremony in the middle of a huge bonfire. Ending with a cliffhanger (always a safe choice), we thought we would never have to hear from them again, putting a sensible finish to a surprisingly good horror film.

And yet trying to milk the franchise for as much cash as possible, here's the sequel, in which very little happens, and one that is frustratingly toned down when it comes to the shock factor. Having moved into a home for lost/traumatised girls (all of them automatically turning into a long list of victims), Nell is settling in working away diligently as a hotel chambermaid although it's not long until the usual frightening occurrences start haunting her. You know, the usual bumpy things, twisty body contortion movements, frothy sei-

zures, demonic voices, weird eye colouring/movements etc.

The first instalment was an excellent use of the handheld-camera technique, but with this follow-up, the style is completely gone and lost, falling back to the old standard way of filming without ever providing something else for the audience to enjoy. The scares are all very generic and a lot of them without much memorable impact. There are a few effective moments, ones that really ought to have been present more consistently throughout.

It's unclear to see just where the film is headed and when it does end up in its big final showdown, (yes, yet another botched exorcism, what else?) you're in for a big disappointment. As a complete unimaginative rehash minus the stylistic push, it all feels tedious and repetitive, one you wouldn't feel like enduring. It's no fun when there's a complete lack of mystery as to what is happening – as from the previous film we've learned all there is to know about this om-

nipotent evil force.

Bell doesn't seem to have any difficulty slipping back into her breakout role, although everyone else around her stands around rather awkwardly equipped only with their clunky dialogue to fend for themselves. Bell's purely innocent and completely clueless nature is always fun to watch as we sense that she's been marked for all sorts of bad things even from the very start. As Nell completely falls apart thanks to the demon, this gives Bell a real chance to show off her talent and she shows that she really belongs in better films.

Perhaps if another sequel is given the go-ahead signal, it will allow the franchise a chance to stir things up and go all-out for a truly shocking finish. After all, this *Part II* ends on a cliffhanger with much potential, one that could surely be developed further, venturing into more daring territory that might certainly be worth a look, unlike this dull, pedestrian piece of work.



Purging all of that useless knowledge after exams



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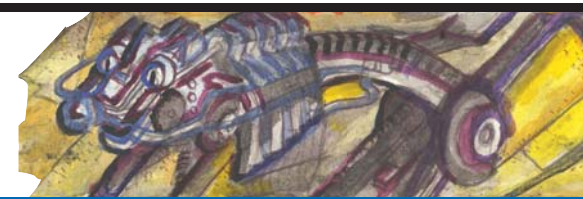
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# Updating Android without updating!

## A slew of new features for Android revealed at Google I/O 2013!

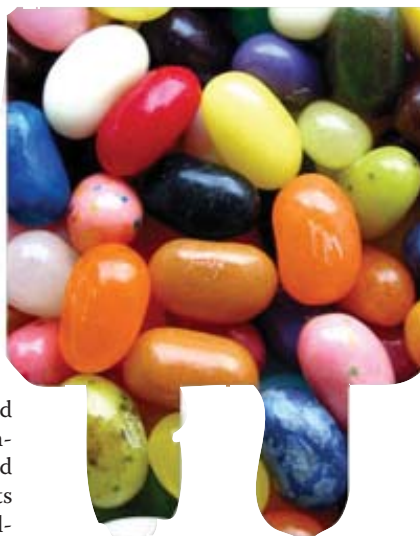
**G**oogle I/O has traditionally, for the past few years at least, been an event where Google unveils the newest and shiniest version of Android to the world. Although open source, Android is developed in-house with little known to the outside world save through the usual rumours and leaks. It's been no different this year. Prior to Google I/O, there has been signs of a new version of Android, version 4.3 and widely believed to be a new iteration of Jelly Bean showing up in server logs. The talk of the grapevine was that this version would be unveiled during the I/O event.

It wasn't.

There was no mention of it in the keynote, although there were cryptic references to it by engineers making presentations. However, given what was mentioned in the keynote itself, we may glean some information towards Google's intentions.

Google unveiled a number of new services it offers for Android during the event. First of all, it unveiled the Google Play Music All Access service, which is a Spotify-esque service that allows unlimited streaming of any music in Google Play's library for a fixed monthly fee. This is built on top of the already excellent Music service which allows you to upload 20 000 songs to the cloud for streaming anywhere. Google also launched the Google Play Game Services, its answer to Apple's Game Centre by al-

lowing you to play games that supports cloud saves, matchmaking, and leaderboards. Google also unveiled the "Google Editions" of a couple of high-end phones on the market right now that will run the stock Android experience without any manufacturer skins: the Samsung Galaxy S4 and the HTC One. Google+, the fledgling social network, also received a massive update with its Hangouts chat service replacing the aging Google Talk service to compete with the likes of messaging services like WhatsApp. A redesigned version of Google Maps was



There is a common theme to the new features: no update!

updated from the Google Play store without needing a new version of Android. Google I/O continues this effort by decoupling some of the applications from the Android core. It is likely that this will continue in the near future.

Another reason could be due to the increasing consumerisation of the Google I/O event. The event was originally envisioned to be a platform for Google to reach out to developers. The increasing prominence of Android in recent years have caused consumer attention to increase for the event, threatening to derail it from its developer roots. This could be an attempt to shift the event back to its original focus, and perhaps create

also in the works.

There is a common theme to the new features: they run on existing (well, newer ones at least) versions of Android without needing an update. Android updates has always been a sticking point in the Android ecosystem, causing Fragmentation (TM) and other nasties. By not announcing a new version of Android while revealing a slew of new Android features, it is likely that Google was attempting to show that they can add new features to Android without updating the underlying version of Android itself. We first saw these efforts when Google applications on Android such as Gmail began to be

another event just for consumers. If that is the case, then we may yet see another event to announce a new version of Android down the road. The current rumours, which should be taken with a pinch of salt, points to early June for this.

Of course, all of the above is simply speculation – Google may have intended to show Android 4.3 at the I/O event but it simply failed to materialise due to some last minute problems. We may never know. It is, however, nice to see that Google can in fact update Android without updating Android.

Yong Wen Chua

## The News Bubble

General news from around the tech world, so you can keep up to date with the newest, weirdest and most futuristic things around.

### Mind guided Heli

Using a non-invasive cap, researchers from the University of Minnesota have managed to harness the power of the mind. The participants of the experiment had to navigate a helicopter through an obstacle course only using their thoughts. This success, among others, will aid in the goal to allow those that are paralysed to use machines that one day may help them to walk.

### Project Haswell

Intel has now released a new generation of processors named Haswell. These, according to the firm, are capable of a 15% better performance as well as 50% more active-use battery life than its predecessors. This is achieved by placing a voltage regulator directly into the chip. Also it will allow tablet/laptop combinations to be much thinner, as it will not need as much cooling as the Ivy Bridge version. Intel will hope that the Haswell processors will allow it to break into the mobile market, where ARM has been dominating so far.

### Charger attack

You can now hack an iPhone with a charger... great! This feat, achieved by a team from the Georgia Institute of Technology, means that iOS is more vulnerable than previously thought. Using a widely available BeagleBoard Computer, costing roughly £30, the charger easily installed a virus into the gadget. While at this moment this method of stealing your data is not really a problem, if Apple do not patch this up, you should beware how you charge your phone!

### Android, Windows 8, Morph!!

At this years Computex convention in Taipei, Taiwan, Acer has now unveiled a laptop that runs both Android Jelly Bean as well as Windows 8. This is probably a move to tap into the phablet/laptop-tablet market, and thus boost the ailing tech company's fortunes. I however don't really see the appeal in this. I mean what is Jelly Bean going to do on your laptop that it can't do on your mobile phone? Unless Acer has somehow modified Android, not much.

### Windows 8 Start Button, OMGG!

YAY! Also released at Computex the new update to Windows 8, 8.1 and formerly known as Windows Blue, will once again reintroduce the iconic start button, whose omission was a big talking point when Windows 8 first came out. Now Microsoft has bowed to popular demand, and what we all loved is back. This move as well others seem to indicate the Redmond giant's focus on the "desktop" environment, emphasising that it is similar to Windows 7, in a bid to encourage more people to upgrade to the new OS.

### On A Personal Note

Once again some personal news. Recently, after being disillusioned by my lack of purpose in life post-examination, I decided to Google myself, just for shits and giggles. Funnily enough I came upon a BlackBerry forum, that seemed to really enjoy my BlackBerry article ("CrackBerry or CrapBerry"). Once the forum members had dissected title and scoffing at the bad attempt at humour, skipping over actually reading the article, they then decided to have a go at Felix as a whole. Eek. However some of these users seemed to somehow seemed to miss that Felix was a student newspaper, instead assuming that it was some lonely individual who had a strange obsession with Imperial College London. If you wanna have a look at extreme FanBoism as well as tell tale symptoms to avoid just head over to that forum!

<http://forums.crackberry.com/news-rumors-f40/yes-another-new-article-crackberry-crapberry-769412/>

Maximilian Eggel Tech editor

Google Play Music All Access; service that allows unlimited streaming

# ANDROID





Games Editor: Ross Webster  
 games.felix@imperial.ac.uk

# GAMES

# An otherworldly tutor

**Sanchit Sharma** struggles with taming his titans, in a Reus review

**E**ver wanted to build a boring wasteland of a planet into a thriving world? Or control giants that can influence the planet on a large scale? “Dammit, ocean giant, I said one space to the left!” Okay, command giants; they’re a bit imprecise. “Come back forest giant, I need you over here!” The silly things. Anyway, forget *Black & White*, four giants is much more fun than one creature that doesn’t even have complete control over the topography!

*Reus* is a god/puzzle game in which you must use your four giants (Swamp, Forest, Mountain and Ocean) to influence the ecosystem enough to create human life on your surface – since you’re the planet, for some reason. By helping the humans complete their projects you may impress them enough for them to send your giants ambassadors, which will increase their powers. However, you must be wary; if the humans get too greedy they may wage war against each other, or even start attacking your giants!

The gameplay is quite simple. The giants each have a major power which will change the landscape (creating whatever environment they are named after), and creating mountains and oceans influences the terrain to either side as well, influencing what type of settlement is formed and therefore

what types of projects the settlement will try to undertake. In addition to this, each giant can place both objects (minerals, plants, animals) onto the surface and aspects onto objects.

Where things start getting more complicated is the interaction between these objects. Each object has one or more synergies which activate if a certain condition is met, which can lead to situations where simple objects produce more resources than more advanced ones. Successfully taking advantage of these synergies is the key to unlocking the more difficult projects.

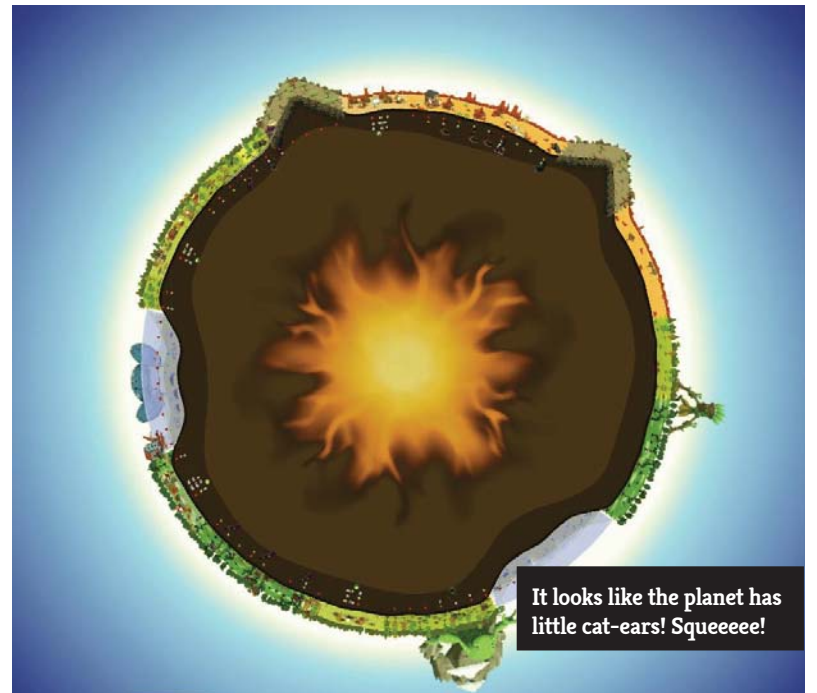
The overall goal of the game is to unlock all the achievements. It is played out in games ranging from half an hour to two hours long (you can, of course, pause or save at any time) in which you try to develop humans in the right way to unlock the remaining achievements, thus allowing humans to try harder projects in later games.

The game as a whole is a lot of fun in the early stages, but can get tedious if you’ve played it a lot. Trying to get the right combination of synergies to complete harder projects can be a real pain, as often the resources required are so high that you must completely redesign everything within the settlement borders in order to ensure that they get enough resources.

This is augmented not only by the cooldown on giant powers, but also by

the fact that resources that have been newly built do not get used immediately. They must become ‘in use’, which takes a little while. Projects always require resources in use and so this non-immediate use can really be annoying in certain situations!

Overall, this is a very enjoyable game, attempting to unlock as many new synergies and objects as possible, and occasionally just helping a settlement wipe out everyone else for the hell of it! It can also be surprisingly fun to simply watch the people in one of your settlements talk about stuff – inventing your own conversations for the symbols that come up in their speech bubbles. But don’t be surprised if it doesn’t last you a long time, unless you’re the kind of person that really gets into puzzle games. *Reus* is available from their own website or a number of other retailers including Steam and GOG for £6.99/\$9.99.



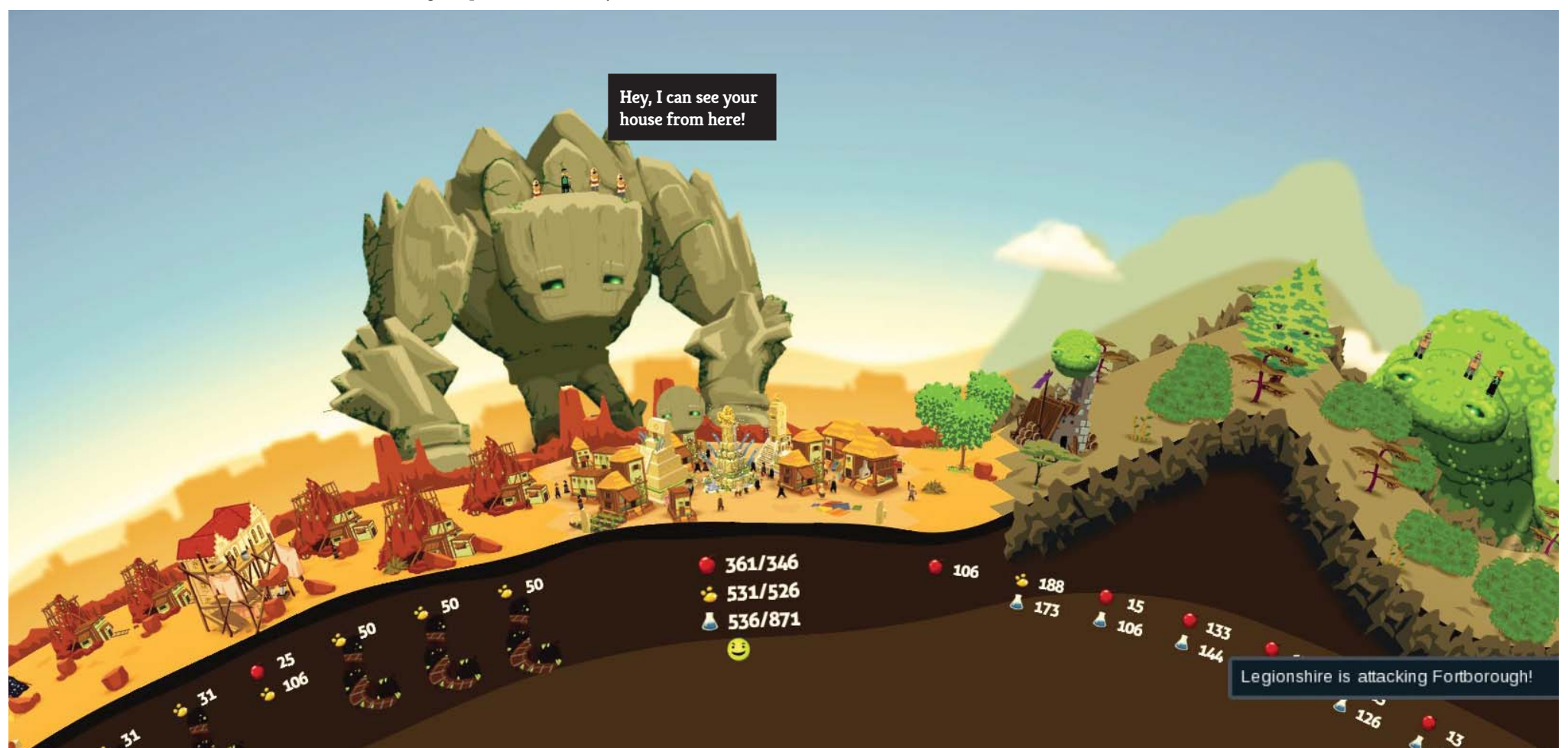
It looks like the planet has little cat-ears! Squeeeee!

## Time, Dr. Freeman? Is it really that time again?

Another year, another smorgasbord of games and games-related... stuff. There’s only two weeks left of Felix this year, and so I’ve two notes for you:

Firstly, send in all your stuff you still want the whole wide world to see! We want to know how you prefer to kill your Sims, or why you like to roleplay on LoL.

Secondly, imma need a successor. There’s a hat, a ceremony and everything! Get your hustle on!





# CHURCH

[everynation.co.uk](http://everynation.co.uk)

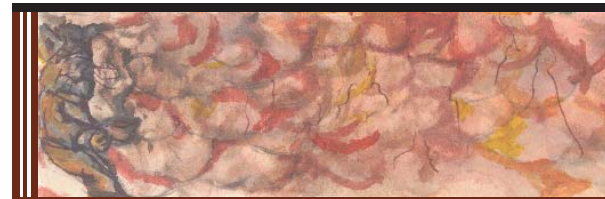


**SUNDAYS**  
ACTIVITY SPACE 1  
**STUDENT UNION**

Free café – 5:30  
**LIVE BAND**







Coffee Break Boss: Matt Colvin  
felix@imperial.ac.uk

# COFFEE BREAK

## FELIX

# BSc/MSci Examination June 2012

*This paper is also taken for the enigmatic and mysterious Examination for the Associateship*

## ELECTROMAGNETISM, PROBABILITY & WELDING CONCEPTS

ANSWER ALL PARTS OF SECTION D, THEN EXACTLY TWO THIRDS OF SECTION B FOLLOWED BY SEVEN EIGHTHS OF SECTION Y. THEN DO A HANDSTAND.

### Question 1

Observe the gentleman in *Figure I* to the right. As you are well aware, I have stated on many occasions in lectures that the historical figures behind the key ideas of this course are completely unexaminable. Unfortunately for you, I lied. In that spirit, answer the following:

- i) Who is this man? [1 mark]
- ii) How is he related to the key ideas of this course? [3 marks]
- iii) Following on from the previous parts, write an extensive essay on a topic you have not revised extensively. [70 marks]

Keep in mind that your answer to Part iii) is weighted in such a manner that it renders your answers to all other questions completely meaningless.







*Figure I: A Victorian man, whose visage you will most likely despise during and hopefully beyond this examination.*

### Question 2

The Minister of State for Faith and Communities Baroness Warsi has challenged you to a high stakes game of Noughts and Crosses. Being a free spirited individual, you allow her the privilege of playing first. She plays as crosses. The game is currently in the stage as demonstrated in *Figure II*. You are playing to win, but you can't help but shake the feeling that Baroness Warsi might throw the game away at any moment.

- i) Can you win the game? [0.5 marks]
- ii) What topics of conversation would you consider bringing up during such a game? Remember that the game is high stakes. [0.01 marks]
- iii) How would you adjust your strategy if the game was Snakes & Ladders instead? Justify your answer. [0.27 marks]

 YOU     WARSI

*Figure II: A poorly played game of Noughts and Crosses.*

### Question 3

In a recent interview with *Vulture*, Hollywood alien vanquisher and one-time Ethos user Will Smith (*Figure III*) posited his theory on everything:

“At heart, I’m a physicist. I look at everything in my life as trying to find the single equation, the theory of everything.”

- i) What is the single equation - the theory of everything? [100 marks]

[Hint: You may only score either zero marks or full marks. I don't expect you to get far with this one. In fact I expect you to stress a lot over this question, while I enjoy your torment and anguish at the front of the examination room. If you can answer this though, you're guaranteed a first. Good luck!]



*Figure III: Everybody's favourite box office champion Will Smith.*

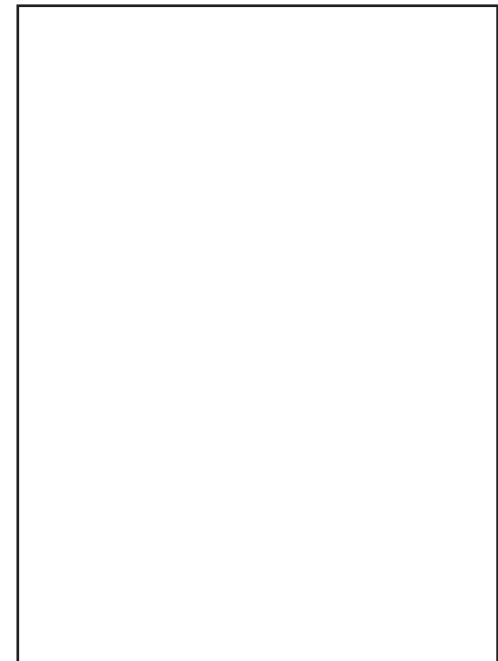
### Question 4

As always, we as a department are looking for ways to make your examination period easier to bear. One of our new alterations to the syllabus is therefore focused on arbitrarily harnessing your own artistic (rather than scientific) creativity:

- i) Draw a dinosaur of your own choosing in the designated empty box to the right [0 marks]

[Hint: There are no marks for this question, but we hope you will attempt it anyway, even if you are running out of time. If not, the examiners may have to express their disappointment in the obligatory examiners' reports. We are sure that the examiners would vaguely appreciate sketches of dinosaurs to improve the experience of marking hundreds of scripts.]

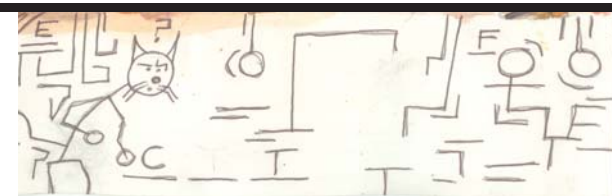
#### DINOSAUR BOX





# HANGMAN

hangman.felix@imperial.ac.uk



## THE NEWS WITHOUT THE NEWS



## EQUIPMENT UPDATE NEEDED FOR UK ARMY LIBRARY SECURITY TRAINING DEEMED HEAVYHANDED

## HOROSCOPES



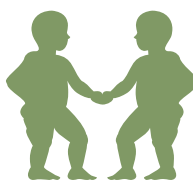
ARIES

This week you have constipation. You got it bad. It really hurts. When you finally do get rid of a log monster you decide to wrap it into a condom and pop it back in. Five hours in A&E later, and you're definitely going to be in a medical textbook. Unfortunately it's on the front cover. You're famous.



TAURUS

This week Jupiter is aligning with your face. This means it will be hideous and you shouldn't leave the house for, hmmm, say 400-500 days. Sorry. Oh well, at least there's TV and stuff to watch on your laptop. Your wife is broken, and nobody can come close enough to fix it as you're infectious. Sigh. Masturbation it is then.



GEMINI

Nothing makes you feel better than a bit of minge. But this week, you'll be getting none. None at all. You will, on the other hand, be getting a deduction of 40% from your dissertation for giving it in 0.000002 seconds late. You try to charm your way out of it with your eyes and smile. You get deducted 10% more.



CANCER

This week you decide to grow a revision beard to show everyone how amazing and rugged you are. It goes surprisingly well. You get a lot of attention and looks while in the library. Should probably mention that you're a girl by the way. Okay, if you're reading this then you could not be, but the stars are not always right. Pint?



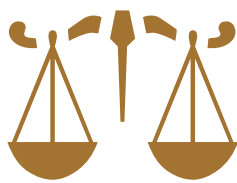
LEO

This week Saturn's view of the Moon is eclipsed by Jupiter. This of course means that goblins are free to roam about. They congregate at Imperial, where they will best blend into the crowd. Nobody notices anything out of the ordinary as everyone's too stressed. They all get 90% on exams and make the scaling unfavourable.



VIRGO

This week you find out that "birthday suit" is not actually a form of fancy dress. 12 hours later and you are released from the police station with nothing more than a caution, and an embarrassingly small sock to cover your blushes. The sock gets blown away by the wind and you're re-arrested.



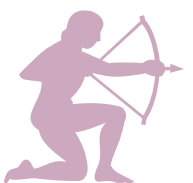
LIBRA

This week you fall madly in love with a handsome lecturer. The way they integrate makes you hot. When they solve differential equations you go weak at the knees. There's one simple equation he can't solve: him and you, getting in on, on his desk. Whenever he tries it he gets 7.23, which is also on the mark scheme.



SCORPIO

This week you are a bee. Floating about and trying to find someone to sting you get lonely. You want some loving, but find it odd to do the buzzing nasty with the queen bee. Mainly because she is your mum, but also because literally thousands of your brothers have been there too. You die alone. Not buzzin.



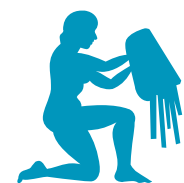
SAGITTARIUS

This week you take your Red Bull and Relentless addiction up a notch. You synthesise all of the active ingredients in their purist form and then inject them straight into you. It doesn't save you from failing your exams, but you do get commended on your initiative. That will almost definitely help when you get a third.



CAPRICORN

Two chemists walk into a bar. The first says "Hello, I'll have some H<sub>2</sub>O please". The second says, "Oh, that sounds good, I'll have some H<sub>2</sub>O as well." Realising that his plan to kill the second chemist has failed, the first chemist pulls out a gun and shoots him screaming "H<sub>2</sub>O... YOU HAD TO MAKE IT HARD".



AQUARIUS

This week you have a 90s and 2000s revival night. Shaggy and Peter Andre are blazing through the walls of your room. You listen to the lyrics. Realising that all the songs you listened to as a child were extremely dirty, you finally have the answer to the question: "Why are you such a disgusting pervert?".



PISCES

This week you need to decide between having to poo out your eyes or wee out of your ear. You could disguise the urine as smelly discharge, which is marginally better. However, the poo would mean you feel like that prick from X Men. Just a literally shitter version. So, what's it going to be?

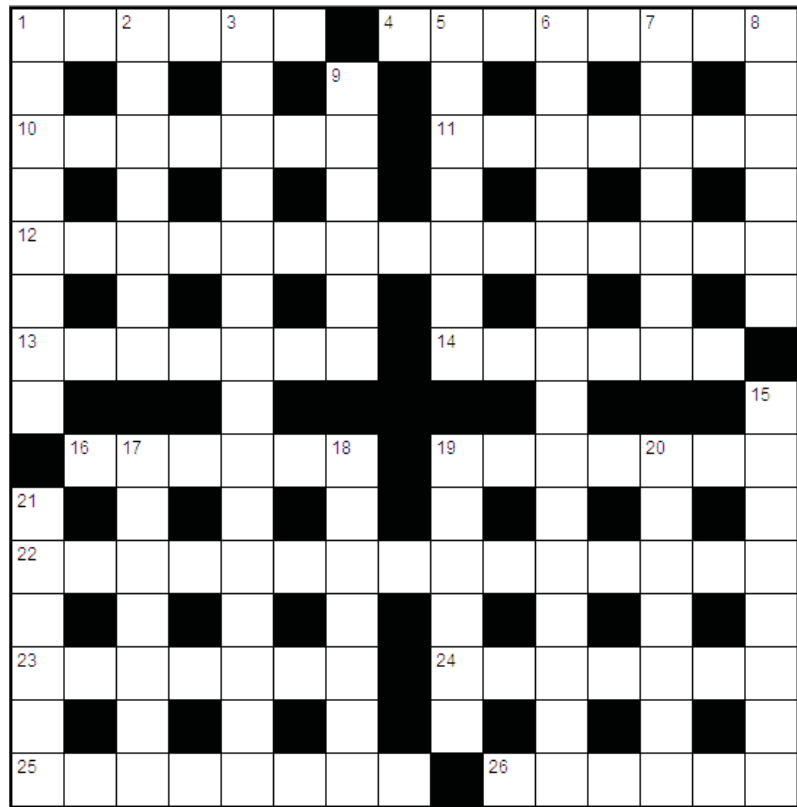




**Puzzles Commanders:**  
**Sotirios Karamitsos**  
**Louisa Byrne**  
 puzzles.felix@imperial.ac.uk

# PUZZLES

## Crossword With thanks to Paulo Giaccone



### Quick clues

- Across**
- Polysaccharide found in potatoes, etc (6)
  - Coat with non-conducting material (8)
  - Ideal (7)
  - Person who imitates another (7)
  - Cancer, for example (4, 2, 3, 6)
  - Handcuff (7)
  - Small spade (6)
  - Sign out of (computer) (3, 3)
  - Memory loss (7)
  - Moderate in one's views (6-2-3-4)
  - Desert, strand (7)
  - From an autonomous region of China (7)
  - Took over from (another person) (8)
  - Uni nightclub (6)
- Down**
- "Goodfellas" director (8)
  - Caribbean island (7)
  - Information that's widely known (6, 9)

- Part of an atom (7)
- Very hard to say correctly (15)
- Store of files (7)
- Tempt (6)
- Put garments on (someone) (6)
- Ironic, mocking (8)
- Weirdo (7)
- Ornamental ruffle (7)
- Shrewd (6)
- Child's vehicle (7)
- Damage (6)

### Cryptic clues

- Across**
- Make stiff map of heavens with no pictures (6)
  - Seal unit somehow to stop current getting out (8)
  - It's best Timothy is taken in by gem (7)
  - Catch unknown animal mimic (7)
  - One in ordered dozen - Goat? Fish? - constellation, initially (4, 2, 3, 6)

- Bind hairs on back of neck back to front (7)
  - Bit of snow derelict digs with this, perhaps (6)
  - Round of crazy golf to come out of computer (3, 3)
  - Am I sane/mad? This makes me forget (7)
  - Music category where you'd find The White Stripes, maybe (6, 2, 3, 4)
  - Leave what 26 might have on a gig night (7)
  - Going round neat bit of Asian region (7)
  - Went through it again over drug - glad it's over (8)
  - Club at Imperial (or not Imperial) (6)
- Down**
- See cross, deranged director (8)
  - Island insect keen, by the sound of it (7)
  - Turn up short brother currently on shelf - we're all aware of it (6, 9)
  - Heart stirred uncle (Uncle Sam) (7)
  - French article and telegram covering Spain about part of speech that's impossible to read (15)
  - Supporting structure I have put on record (7)
  - Lure seen among authentic equipment (6)
  - Dress thrombus with helium (6)
  - Derisory reform on cards catches one (8)
  - Not even DJ Zoe is a freak (7)
  - Emphatic movement of uncle arranged (7)
  - Perceptive, as you French note (6)
  - Bike bird into south east (rook) (7)
  - One male couple weaken (6)

## Double Trouble

A couple of quick riddles:

- A) You can see three faces of each of two standard six-sided dice. You can count 27 pips in total. How many pips can you count on each die?
- B) A newly-erected building has 16 apartments. The tenants want to number them, and so they contract Fancy Golden Lettering Ltd. They are informed that digit X costs £X (so 0 is on the house). How much will they have to pay?

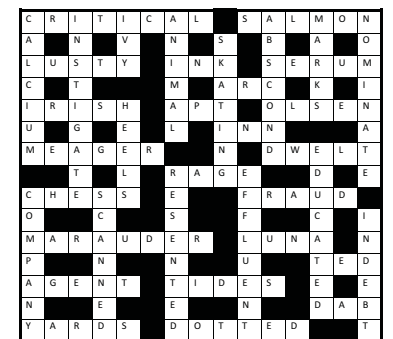
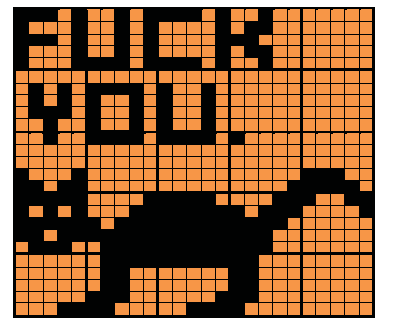
## FUCWIT League Table

### INDIVIDUALS

Yufan Zhao	26
Wael Aljeshi	22
Gabriel Quek	3
Tan Wei Jie	1

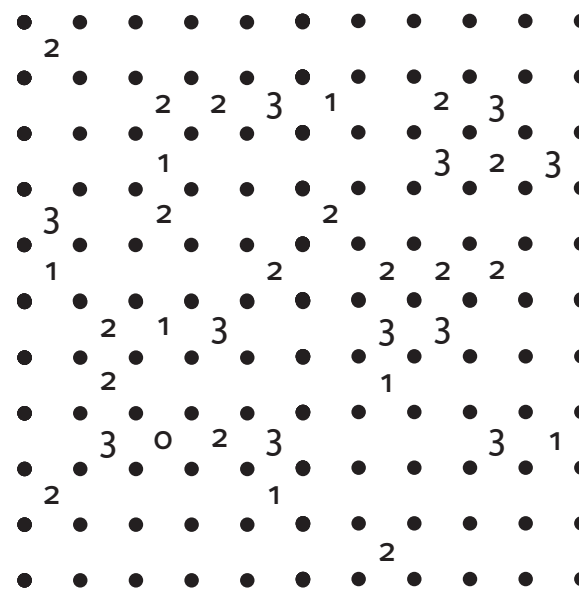
Go for it. You know you want to.  
 puzzles.felix@imperial.ac.uk

## Last week's solutions



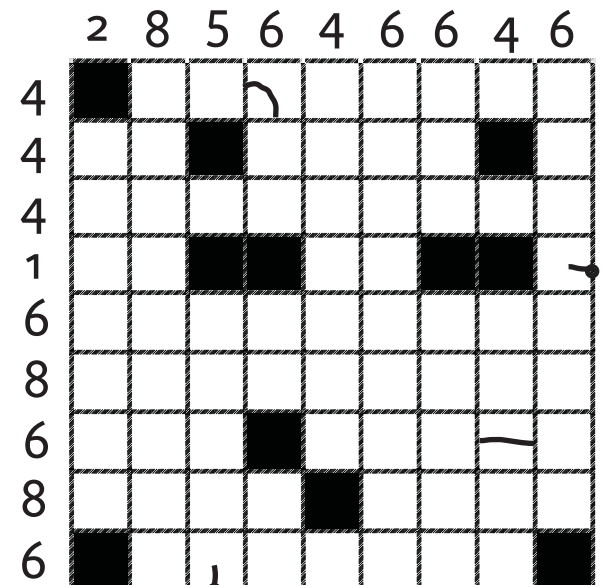
## Slitherlink

Normal Slitherlink is finally back, but don't think you've gotten rid of Special Slitherlink that easily. It might make a return bigger than ever. The rules: draw a single closed loop by vertically and horizontally joining the dots so that the numbered squares are surrounded by the corresponding number of lines.



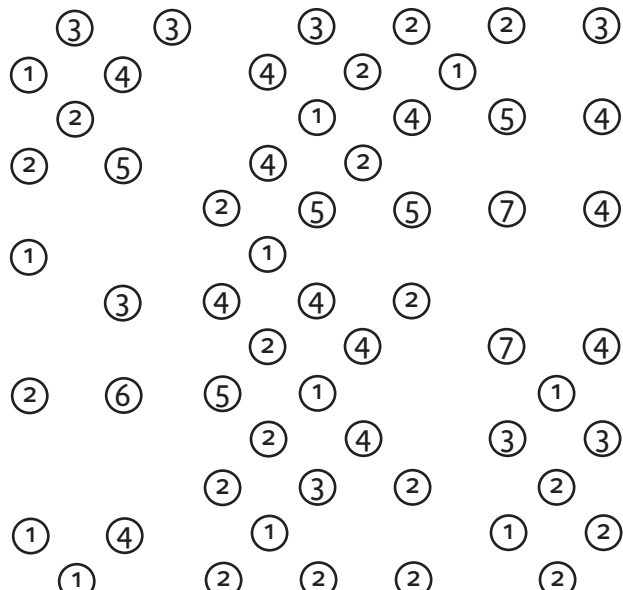
## Ophis

You know who else is back? That's right, David Bowie. Also Ophis. Fill the cells with a continuous line that does not pass through a cell twice, doesn't intersect with itself, and passes through all white boxes. The numbers show you how many times the line turns in the corresponding row or column. The snake enters and exits the grid at the shown points (and only those points). There are some hints to get you started.



## Hashi

Slightly bigger this week, because you guys have almost achieved 100% completion on the 11x11. Connect all the islands with vertical and horizontal non-intersecting bridges so that it is possible to get from any island to any other one. There can be up to two bridges between any two islands. Each island indicates the number of bridges starting from it.







“Keep the Cat Free”

# SUN, SEA, SAND: FELLWANDERERS HIKE PEMBROKESHIRE



Must be up north; blue skies, beach and still they have coats on!  
All pictures courtesy of Terrence Lai.

**Jessi Wunder**

Sports writer

Friday, 24th of May: a rainy day in London, what else would you expect? But 12 brave, hiking loving students were ready to leave for Pembrokeshire, Wales on a Fellwanderers weekend trip. Since it was a bank holiday weekend, it took us quite a while to get to Wales. But by the time we arrived, it stopped raining and although some were still sceptical about the weather, we trusted in the weather forecast for the weekend that it would be sunny and set up our tents.

Saturday we drove to St David's (Britain's smallest city) and started our tour along the cliffs to the fishing village of Solva and Newgale Sands beach. We had a relaxed walk with a few stops to admire the beautiful cliffs and the landscape. For lunch we enjoyed fish and chips and ice-cream, the favourite food over the weekend. The weather did not disappoint us, the Sun was shining and at the end almost everybody got sunburnt and

the first thing we did after finishing our tour, was going to the supermarket to buy sun cream. We also bought food for the next days and had a great barbecue that evening at our campsite (Trefalen Farm, by Broad Haven beach).

We were woken up by the sunshine on Sunday morning. It was so hot in the tent that no one wanted to be inside anymore. After breakfast we started a beach sightseeing tour from Manorbier castle, along the coast. We were walking from beach to beach, sunbathing and the toughest going swimming in each one. While playing Frisbee and throwing the Nerf around, nobody cared about the freezing cold water. At the last beach we split up. Some relaxed at the beach; others went back to the camp site and the rest took a walk near a lily pond. There were so many lilies but it was too early for them to bloom, so we only saw the leaves. In the evening we rejoined to have another barbecue and to watch the moon rise as night drew in.

Monday morning we woke up to

totally different weather. The wind was blowing so strong, that we feared we would be blown away with the whole tent! Hence the first challenge of the day was getting the tent down and not being blown away. And to make it even worse, it was starting to rain as well... but we completed our challenge.

After a little discussion, about what we could do for a walk, we decided to make a short walk, about an hour, along the cliffs from the Green Bridge of Wales (a large rock archway extending out into the stormy sea) to St Govan's chapel. This was enough to make everyone soaking wet! We had our lunch in the chapel which is built into the side of the cliffs. After changing into dry clothes, we went to the minibus and set off to find a coffee shop to warm us up. This was the second challenge of the day. After looking for a café in a castle and finding out that there wasn't one, we drove by a nice modern coffee shop, stopped and had some nice teas, scones and hot chocolate. And then it was time to get back to London....



Look a horse!



I don't see any wandering in this picture, in fells or otherwise.