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ISSUE 1657 ... the green issue



THE STUDENT NEWSPAPER OF IMPERIAL COLLEGE LONDON

Alban Hall students to rent strike? PAGE 4 News

Climate change is a political problem

PAGE 6 Comment

Questioning Consumerism

PAGE 10 Comment

Sustainable science | Just a dream?

PAGE 13 Science



Killing the planet in style

PAGE 27 Millennials

Telix



Going green is hard

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h my god this issue is so green. SO GREEN I TELL YOU. Just reading it will make you healthier and add at least one year to your sad, Imperialstunted life. You might wonder why. You might even vocally ask me on the off chance you spot me outdoors "why are you doing a Green Issue Lef? Caring about the environment is so 2001."

And the truth is I feel you. As a former starry eyed biologist who wanted to work in conservation and legitimately tried to work on schemes that were fighting to save the rhino, I look at myself today and almost feel a bit sad. My dinner last night generated enough plastic waste to kill a small family of sea turtles (of course I know there's no such thing as a family of sea turtles, sea turtles live solitary lives, you can take the biologist out of the field but you can't take away all the countless hours I've spent watching natural history documentaries). My household orders toilet paper from Amazon. And I've eaten so much sushi this year I feel personally responsible for the decimation of global tuna stocks.

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But as I said, I almost feel sad. Because caring for the environment is hard, demoralising and draining. Regardless of whether it's true or not, you soon accept that using eco-friendly products is inconvenient, turning all the lights off is hard and caring for bees is pointless. Looking in the mirror to find that you've become one

of 'them' is a bizarre experience. Part of you wants to say "Snap out of it!" but all that comes out is "Meh".

Still when Environmental Soc came up to me and said they were doing a Green Week and they were wondering if we could work on some content in anticipation, my tiny, oil-smothered heart skirted and once again we went all out. So once again we got a good deal of people legitimately caring and contributing their thoughts and advice, and it's been nice (and surprising) to see some environmental consciousness protrude from this pile of corporate sponsorship we call Imperial College.

So read on and try not to dwell on the hypocrisy of trying to be green while printing 80,000 pages worth of questionable content.

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No mascotry resolution in sight

Matt Johnston

Why bother with reforms if nobody cares?

N E W S

he age-old Imperial tradition of mascot stealing (also known as mascotry) was once again brought up at Union Council

on Monday, in an attempt to create a new, contemporary set of rules to regulate the competitive 'sport'.

Mascotry involves the theft of the various antique items that each of the constituent unions (CUs) possesses i.e. their mascots. The mascots go from 'violate' to 'inviolate' depending on whether their theft is permitted or not.

The mascots come in all shapes and sizes and include Bolt (a 68lb wheel nut), its sibling Spanner (a 64lb brass spanner manufactured to fit the bolts on Tower Bridge perfectly), Davy (a threefoot high, 132lb brass and aluminium mining lamp), Theta (a seven-foot long steel thermometer which according to the RCSU costs £ 10,000), and Phoenix (a six foot tall bird suit). These are the crown jewels of CGCU, RSMU, RCSU, and ICSMU respectively.

The paper was a followup to one presented in November by Andrew Olson (Council Ordinary Member, Undergraduate Faculty of Engineering), in which it was proposed to make all mascots inviolate (i.e. unstealable). The paper was rejected but Council agreed to reevaluate the existing rules at a future point.

The revised paper argued that the current rules are outdated and that the vagueness has caused disagreements (with CU members reportedly getting roughed up by rival CU members) in the past. The original 1999 rule book has only been signed by CGCU and RCSU, leaving it ambiguous as to the rules that RSMU/ICSMU 'play' by.



College Property. Mascotry has a long history, especially between CGCU,

measures to prevent injury

and damage to mascots and

RSMU and RCSU (ICSMU's Phoenix wasn't around until 2009), and tales of cunning stunts can be found littered throughout past issues of *felix*. Raids involving fire extinguishers, hordes of students, and car chases down Exhibition Road have occurred in the past so a few rules could help prevent it all from getting out of hand.

But the presentation of the paper saw many students

\\ Raids involving fire extinguishers, hordes of students, and car chases down Exhibition Road have occurred in the past \\

elix

question the need for mascotry discussion. Simran Kukran, a welfare representative for the RSMU, argued that no one cares and council should be a place to discuss more pressing issues. The RSMU president also questioned the point of creating rules to regulate an activity that only a handful of students participate in. The disagreement between CUs prompted DPCS, James Cowx to ask the CU presidents to talk it out before bouncing the paper for a second time. Looks like the mascotry paper lives to die another day.

King's Fossil Free leads to student arrest

nyone that's been around Imperial a while will remember the Free Fossil Campaign posters that went up during first term a few years ago. These declared "Imperial's getting coal for Christmas" as part of a larger campaign to try and get Imperial to divest from fossil fuels. Whilst the Imperial group for this movement has become slightly quieter on campus lately, the national movement is going strong.

Last week over forty students

decorated the front of King's College London with balloons, flowers and poster paint dots in part of a gradually escalating campaign of action with the aim of getting King's College London to divest from Fossil fuels.

The poster paint dots relate back to action from the last week of Autumn term when students sprayed 1000 chalk dots around the internal walls of King's College to represent the need to 'connect the dots' on climate change. The point the campaign was trying to make, was the need for looking beyond polar bears

\\ Roger has since been suspended and David banned from College property \\

and realising that the 2°C temperatures limit that's on track to be exceeded in a matter of years, will lead to an exponential increase in forest fires, floods, droughts, storms and sea levels.

At the start of this term, Roger Hallam, a PhD candidate in the Department of Culture Media and Creative Industries, spray painted "Divest from Oil and Gas Now – Out of Time" on the front of King's. Then later in this term ten students and alumni spray painted the Main Entrance Hall of the College leading to the first arrests in decades of King's College students during a political protest. Roger Hallam (student) and David Rhys Alan (alumni) were detained for 14 hours before being released without charges at 3am. Roger has since been suspended and David banned from College property.

A King's student, Luke Harwood, has said the following: "The fact that institutions such as KCL are content to happily risk the fate of humanity for a profitable investment is beyond contemptible. When they seem so obviously unwilling to divest the only option is to escalate our message."

King's College seem to have at least started a dialogue and time will tell about how far these actions will go before a resolution is reached.

With Green Week coming up this seems an ideal time to reignite efforts for divestment at Imperial.



Alban Hall living conditions deemed poor

Lef Apostolakis

ollowing the reveal of the poor housing conditions at Evelyn Gardens earlier last year, another Hall of Residence has

been found guilty of offering accommodation, sub-par after numerous reports were brought to felix's attention.

This time, students at Alban Hall have had to consistently deal with plumbing, electrical, and, possibly the worst of all, internet connectivity issues since the very beginning of their accommodation. But the recent, rapid deterioration of conditions, including flooding in the laundry facilities, a three day long internet cut and reported serving of expired food (Alban is a catered Hall), has made many disgruntled residents speak out. "It's absolute an dangerous shit show", says Joseph

\\ It's an absolute dangerous shit show \\

University of London college in which Alban is situated) left the computer suite open to residents overnight. A Facebook post by one of the wardens read "Heythrop are keeping the computing suite open in the main building tonight... They've asked us to pass on their apologies – they had hoped to have it fixed today."

But these are just extreme examples in a string of persisting issues. The plights of Alban's residents include but are not limited to: days without internet, laundry machines in need of repair, clogged drains leading to leaks, flooding, and mould; plug sockets routinely

Alban Hall is located on High Street Kensington, a step away from the tube and a convenient ten minute walk from the South Kensington Campus.

"Over time it has become clear that the problems which at first were minor have now become a part of our daily lives and are increasingly more dangerous. In the past week alone the washing machines flooded, the internet was down for three days and I have been served gone off food. Aside from these temporary annoyances, there are many long term issues which repeatedly get patched up only to go wrong again further down the line, but this time ten times worse. Sinks and showers do not drain properly the consequences of which at first were floods, then mould growing on the walls

\\ In the past week alone the washing machines flooded, the internet was down for three days and I have been served gone off food \\

(which is not the best when you are asthmatic), and finally the leaking water filled all the lights in the bathrooms and stopped them from working. It was lucky no one got electrocuted"

The poor living conditions have led to the creation of a Facebook page dedicated to memes trying to make light of the situation. Some students however are considering serious action involving withholding rent like their counterparts have been doing at UCL.

Despite the frustration of Alban Hall residents, there is no animosity against the wardens "I think the wardens and sub-wardens are doing their best to help students out. In fact, I have no ill feelings towards the people running the hall. However, I hope from the bottom of my heart that my 225 quid per week in rent might finally be put to better use," says May Kyaw a first year biochemist. Imperial students pay, approximately £7,700 a year for their accommodation at Alban Hall. Their Heythrop equivalents pay £6,400.

Students considering withholding rent

In response a College ″We spokesperson said are aware that issues were raised with wardens in Alban Hall earlier this term, and apologise to students affected. We understand that the issues were discussed at a Hall Committee and quickly addressed. We are concerned to hear that felix have received reports of ongoing problems.

"We take any reports of problems with accommodation very seriously and encourage students to come forward with any issues if the arise. In Alban Hall, students should contact the Hall management staff (located in the Heythrop College Accommodation Office) directly with reports of any problems."

The lack of action is thought



\ Memethrop



to be a result of Heythrop College's uncertain future. Heythrop, which specialises in philosophy and theology, is currently set to be closing down in 2018, after failed attempts to form a partnership with the University of Roehampton.

Earlier last year, it was revealed by the Evening Standard that agent CBRE was hired earlier last year by Jesuits in Britain, freeholders of the property, to sell the prime plot of Kensington estate.

Jesuits in Britain Α spokesperson told the Evening Standard that the move to sell was at least partially motivated by financial loses. The bidding was expected to start at at least £100 million.

"Heythrop College incurs a significant financial deficit each year. The financial reality is that as a small institution, within this highly competitive higher education environment and with the costly regulatory demands, it cannot continue in its current form."

The Halls at Heythrop College will most likely be accepting new tenants for the academic year of 2017/2018. Whether there are plans to refurbish the estate before it's sold off is unclear. But based on the current situation we think it's unlikely.



Left ,mould in bathroom; Right ,Floodmark \\ Mark Pollock

O'Connell-Danes a first year chemist and unlucky resident of the decrepit Hall, "there is fast growing contempt for the halls and increasing chatter in about rent reductions being deserved."

Last Monday, in a desperate attempt to appease internet deprived students, the management at Heythrop (the

losing power, leading to fridges without power and the subsequent rotting of groceries.

'When we first moved in to Alban Hall it was obvious that everything was a bit run down but that was the price to pay for a great location and being catered" says Ella Vialle-Sole, another chemistry undergrad.



Is being a sabb bad for your health?



An anonymous writer worries that the Union is not doing enough for its sabbatical officers

\\ Thanks to poor management, the sabbs are the ones who are suffering \\

ear on year, the process of the Union elections c h e r r y - p i c k s those who are some of the most vulnerable to lead us as

sabbatical officers. This makes sense – those who have experienced difficulties during their time at Imperial are the ones who know the system, and the ones who are most likely to be passionate about it. This isn't always the case, of course: we have a lot of egomaniacs and people posturing to be career politicians who have very long-term goals in mind. But the person who has had experience with

\\ Those who have experienced difficulties during their time at Imperial are the ones who know the system \\

the mental health support at Imperial is more likely to want to improve it by donating their time as DPW. The person who wouldn't have made it through second year without their sports team is going to want to be DPCS to make sure that everyone else has the same opportunities. The person who nearly failed third year but didn't because of their academic support may turn out to



be passionate enough to run for DPE.

And this isn't a bad thing. These are the people who've needed the resources most, the ones who know how powerful the Union can be. They truly do care (probably too much), unlike the majority of students who get in and out with their degree, never pausing to look back. They aren't the ones who wanted the most bang for their buck, taking advantage of what was on offer without ever giving back.

But, students who meet the criteria that qualify them as a strong sabbatical candidate are being thrown into the pressure cooker environment of the Union, and left high and dry when it comes to receiving any kind of support through the process.

Both during campaigning and after it (whether or not they have been elected) there is a distinct lack of support for the students who are putting themselves out there, putting their heart and soul into something they believe in. Campaigning is immensely stressful for everyone, and for those who are unsuccessful, it can be a massive blow. In the past, the Union has run sessions ahead of the elections to let people know what they're in for, what being a sabb is like, and to give them tips on how to cope with it. That doesn't seem to have materialised this year, leaving this year's candidates potentially unprepared. Some sabbs get lucky, and

enter a full team of Union staff who are able to manage their workload and support them.

\\ The way that sabbatical officers are being handled poses a huge risk to their mental health that the Union is refusing to acknowledge \\

But others enter the teams that the ever-present staff shortages have hit hardest, forcing them to push themselves to fill a full time staff role as well as meeting manifesto points that they're held accountable to achieve.

But the sabbs are just students. They are not fully fledged graduates who have applied for these jobs. They are students who have been given these roles, with very little experience relevant to being a trustee of a multi million pound charity, because they care. And it's this determination to better things and to care that can be a detriment to their mental health.

These days, each sabb has a line manager who is responsible for them, whether that means supervising their email traffic, assigning them tasks, or ensuring they are staying on track. But when it takes five months to give Union welfare officers mental health first aid training that was due during the handover at the beginning of the year, how can we expect each of the senior management group to be trained to handle the mental health of the students under their care?

The way that sabbatical officers are being handled poses a huge risk to their mental health, one that the Union is steadfastly refusing to acknowledge or take any steps to mitigate. In the absence of any staffing problems, if the Union functioned as a welloiled machine, then these roles might be suitable, but thanks to poor management, the sabbs are the ones who are suffering.

The Union is being irresponsible. Irresponsible in the way that it is recruiting candidates



without fully preparing them, and irresponsible in the way it's failing to support them. There is a long legacy of ex-sabbatical officers dealing with their mental health fallout for years following their time at

\\ There is a long legacy of exsabbatical officers dealing with their mental health fallout for years following their time at the Union \\

the Union, and it's a trend that needs to stop now.

Hopefully one day soon the Union will take notice of the trail of sabbs it's leaving in its wake, but when you're watching the future sabbs battle it out on Meet the Candidates, spare a thought for just how much they're giving up for your sakes. And if you're planning on running for a sabbatical position, for God's sake make sure you take care of yourself, because no one else will.



Climate change is a political problem

political



Thomas Rhidian believes that to mitigate Climate Change we need to first embrace political change

\\ Viewing climate change in this way is crucial as it shapes the kinds of solutions that we look for \\

descriptors go, the humble watermelon perhaps is predictably an unconventional one: it is not wheeled out too often as a way of making a point. It's a charge often levelled at politicians like Caroline Lucas, who are accused of being green on the outside but red (that is, socialist) on the inside. The scorn that this combination provokes on the right of the political

on the right of the political spectrum is telling – for too long, environmentalism has been seen as detached, and even beyond politics: a fringe interest, something best left to millionaire celebrities with a guilty conscience. Global warming is often treated as if it were a catastrophe that we have no control over, with our only hope being some miracle of technology. This could

\\ For too long, environmentalism has been seen as detached, and even beyond politics \\

not be further from the truth; climate change is emphatically not like an asteroid heading towards Earth – rather, it is the direct result of the way that we choose to organise our societies and our economies. The challenge that climate change poses is neither scientific nor technological, but political.

Viewing climate change in this way is crucial as it shapes the kinds of solutions that we look for. If we choose to see global warming as an entirely technological problem, then we invite only technological solutions. Accordingly, geoengineering - large-scale human intervention in the climate system in an attempt to reduce warming - has grown over recent decades from a fringe research interest to a leading proposed method of mitigating climate change.

Various different flavours of geoengineering have been put forward, ranging from the seemingly benign to the downright reckless. An infamous example of the latter is the proposal of Nobel Laureate Paul Crutzen to launch parcels of sulphur into the high atmosphere using artillery guns. Sulphur reflects sunlight, and the project would almost certainly lead to a cooling of the atmosphere similar to the aftermath of a volcanic eruption. But it's unlikely that this would be the only effect - even small eruptions often volcanic drastically alter rainfall patterns, destroying crops and causing extreme weather; the effects due to a project of Crutzen's scale could be even more serious. As if this were not enough, sulphur in the atmosphere is known to destroy the ozone layer, potentially exposing us to

greater levels of harmful UV radiation from the Sun. It's hard to avoid feeling that the whole project would be akin to pinching yourself to cure a headache – with that many dire consequences, global warming would probably be the least of our worries.

It's perhaps unfair of me to pick the worst example of geoengineering, and that's not really the aim of this article. The problem with geoengineering is not so

\\ Geoengineering has from a fringe research interest to a leading proposed method of mitigating climate change \\

much that it's always bad, but that by relying on it to save us we are missing the point. By framing climate change as a purely technological problem, we end up letting the worst climate offenders off the hook. This is precisely why geoengineering is so appealing to policymakers; those who are used to framing climate change as a technological issue are primed to seek technological solutions, rather than make any serious attempt to change the economic factors driving emissions. As years pass and emissions continue to soar,

these quick-fixes become increasingly attractive to a corporate and political class reluctant to alter the economic status quo. In the words of the political theorist Frederic Jameson, it's become "easier to imagine the end of the world than the end of capitalism".

Climate change is not so much a crisis of science, then, as a crisis of capitalism. It lays bare the central lie at the heart of the capitalist economy that we are nothing more than individuals looking to outcompete each other, rather than social animals who all have a vested interest in the fate of our shared planet. Climate change also reminds us that economics does not exist in a vacuum; our actions have material consequences, and even if right now those consequences seem far away from rainy London and Western Europe, it won't be long before we all feel their effects. Ultimately, carbon does not respect national borders.

If we are to be serious about avoiding climate change, then switching off lights won't cut it: we must be prepared to radically alter the way we structure our societies and our economies. It will involve a wholesale change of what we deem to be economically important; striving for infinite growth on a finite planet, for example, is a game that we're destined to lose. The priority must be to fairly distribute the planet's wealth among its seven billion inhabitants, accounting for the

\\ We are nothing more than individuals looking to outcompete each other, rather than social animals who all have a vested interest in the fate of our shared planet \\

fact that often the countries likely to bear the brunt of climate change are the least equipped to do so. Limiting global temperature rise to manageable levels will require that the majority of known fossil fuel reserves stay in the ground. We cannot gamble on fossil fuel companies doing this through the goodness of their own hearts. These are the people, after all, who would sooner trade the future of the planet for a quick buck than lose their place at the top of the economic tree.

As long as our economic system sacrifices sustainability in pursuit of short-term profits, we throw away our best chance of avoiding devastating climate change. Environmentalism and progressive politics are two sides of the same coin – red without green is myopic; green without red is toothless. Perhaps, then, it's time we all embraced watermelon politics.



You have no excuse for not recycling



Giulia Costa gives top tips on how to be a better human being

\\ We are nudged to recycle, but we're often not told how to do it properly \\

ave you ever spent a long time staring at the coloured bins wondering where your everything o² Wondering if

should go? Wondering if someone is judging your bin choice? Well good, because recycling is important.

The global population is rapidly increasing and our lifestyles generate huge amounts of waste. In the UK, an average person generates around 413kg of waste every single year. The waste



produced in this country within less than two hours could fill the Royal Albert Hall. Managing this wastefulness can be done through the three Rs: Reducing, Reusing and Recycling. These are listed in order of importance, but for now, this article will focus on the final R: Recycling.

A lot of recyclable material is disposed of in general waste bins. This is a shame as simply disposing of rubbish in landfill sites is incredibly harmful to the environment and translates to a loss of resources. Throwing away potentially recyclable waste is like throwing energy \\ Looking it up online is always a good idea, and many items actually have recycling instructions on them \\

away. Recycling one tin can, for example, would give the equivalent energy to powering a TV for three hours! Recycling takes little effort and it goes a long way.

This is why we are nudged to recycle, but we're often not told how to do it properly. At Imperial, for example, there are excellent recycling facilities across all campuses and halls. But lack of clarity when it comes to 'what goes where' causes a very real loss of efficiency. We've all been there: "where should I throw my tea bag? Should I empty the contents into food waste and throw the bag in paper? What is the meaning of life?" So we just either guess or throw it into general waste to be safe. But in fact there are clear guidelines and dos and don'ts when it comes to recycling. (For the record, most tea bags can simply be thrown in the food waste as the bags are biodegradable.)

First of all, plastic bags: Do not throw these in dry mixed recycling! Not all plastics can be easily recycled. Only hard plastics go in the green dry



mixed recycling bins. These include things like plastic bottles, tubs and trays. Plastics often have a category, which is shown on them.

Then we have pizza boxes: Greasy pizza boxes should not be recycled with paper, and can make a whole batch of paper and carton nonrecyclable. On a related note, you should clean any food container you throw into recycling. It does take more effort, but it cannot be recycled if you don't, so the extra effort goes a long way.

Another helpful thing you can do is remove the caps from plastic bottles before throwing them in the dry



mixed recycling. Caps and bottles are made of different plastics, and separating them makes life a lot easier for recycling plants. But now for something that will save you time! Although some people think it is necessary, you do not have to remove labels from food containers before recycling them.

When it comes to glass, not all is recyclable. Things like window glass or glass laboratory equipment should not be thrown in the red bin. The same thing goes for packaging made out of paper - paper cups or cartons that are waxed should not go in the red bin. Paper towels and napkins should also not be recycled, even though they're mare made out of paper.

And if you don't know what to do with a particular waste item like a nappy, some old tights or that Celine Dion CD you got last Christmas, that's okay (all of the above are recyclable FYI). Simply not knowing where to put waste items is more common than you think. Looking it up online is always a good idea, and if not, many items actually have recycling instructions on them. For items that are trickier to recycle such as aerosols or batteries, there

\\ Part of the responsibility to make this country more sustainable lies with those living in it \\ are online resources such as Imperial College's online waste directory, which give instructions of how to dispose of them.

Many facilities have posters that detail what gets recycled where (Imperial will also be adopting this measure soon). Once you learn what goes where you will see recycling is not that hard!

By implementing these small changes, recycling can be made much more efficient. By taking these 'hacks' and applying them at home we



become even more efficient. London is presently one of the worst recyclers in the UK. Countrywide, the UK's recycling rate for household waste has gone down recently bringing us further from the EU's goal to recycle 50% of waste. Part of the responsibility to make this country more sustainable lies with those living in it. It is our responsibility to recycle well and efficiently to ensure a brighter future for our planet.

If recycling is not enough for you and you want to make a bigger change come and join us in ESoc and participate in our recycling campaign. elix <u>comment</u> Entropy BLAH Blah. B



Postgraduate study is wrought with classist undertones



Tessa Davey explains why PhDs are near-impossible to finance without family help

\\ The system is completely failing working class students in postgraduate study \\

he UK has a vast historic class divide – only those from the upper-middle classes who are in severe denial about

our country would go so far as to say that class does not remain a huge cultural barrier today. Education has traditionally been something for the rich, and our modern higher education system is designed to, in theory, reverse this. Today, no one, politicians claim, is prevented from attending university because they can't afford it.

And to some extent, this is true. I started university with an assessed family income well below the lowest threshold. I

\\ We can't leave, because we need to finish our degree, and we can't claim benefits because we're still technically students \\

got bursaries and loans; sure, I have £50,000 of debt that I'm going to be paying off for the rest of my life, but at the time I wasn't lacking for money. This class divide bit me in the backside in other ways at Imperial where, relative to the majority of grammar school or privately-educated students (or even just those who went to good middle-class schools in south east England), my rural Welsh state education just didn't stack up, and I struggled more than most. Further to the educational difficulties, socialising at a Russell Group university when you're someone into whom entitlement and assertiveness have not been bred can make you a bit awkward at best, and a social pariah at worst. But, all this aside, I was able to get a phenomenally wellrespected undergraduate degree, something that my parents certainly never did, and so, to some extent, the system works. Great.

Where the system completely failing is working class students is in postgraduate study, and I think Imperial is particularly guilty of ignoring this. The process of getting a doctorate is simply not designed for someone who is not able to self-fund at least part of their studies, and this requirement can be a dealbreaker particularly when you want to study in the most expensive neighbourhood in the country.

Most PhD students get the basic annual stipend of about £15,500 (although most DTCs (Doctoral Training Centres) and the Imperial scholarships pay significantly more. Why, I wonder, are these students deserving of more money?) which just about gets you a GradPad room and a handful of change. Sure, you can rent private accommodation, but even then this amount of money is barely enough to scrape by on. Undergrads living on much less money and eating beans on toast every night: yes, I hear you, but after nine years at imperial I deserve to be able to afford a fucking burrito if I want one (and there are more legitimate reasons for us needing more money, such as needing suitable attire for conferences, having families to support, and our daily coffee intake being significantly higher). Most PhD students, particularly the poorer ones, tend to supplement this with hours of GTAing, which takes up a huge amount of time, and really eats into your work, meaning lower quality research.

And then, of course, there's the matter of how long your funding lasts. Although it's very unusual (even for the best student) to finish a PhD completely in three years (most take almost four), huge numbers of us only get funding for three years. Some people manage to get funding extensions, but, for most, what it works out to is almost a year of unpaid work. Does that seem reasonable? Or more like slave labour? We can't leave, because we need to finish our degree, and unlike in other countries such as Germany, we can't claim benefits because we're still technically students. And trust me, it takes this long. We're not just faffing around and taking our time because we're too comfortable.

With this unpaid component of your PhD being almost a necessity, how can you prepare for it? You have

no idea how long it will be, and you can't really save up earlier in your studies either. You probably can't get a loan as you have no income, and so unless you're fortunate enough to have family or friends who can support you, usually you're in a really sticky situation. And it's unpredictable; it can spring up on anyone whose results are delayed or unexpected. When a colleague takes six months writing their part of a paper, or your samples get destroyed when an MSci student



contaminates the glovebox: research is unpredictable and it's the ones at the bottom of the ladder who are suffering for it.

A study by Swansea University found that just under 5% of students are in some way involved in the sex industry. This may seem completely alien from our experience at an elite university of predominately wealthy students, but even if their data is skewed, they still collected data from thousands of students that demonstrates that it's not a minor problem. I remember being surprised to read (in a different study) that around 10% of female PhD students turn to prostitution towards the end of their studies. This isn't really surprising. I've seen final year PhD students who are writing the most challenging document of their lives, eking out a can of soup for a full day, because they can't afford to buy any more food than that. I've been one of London's hidden homeless since September, taking advantage of the generosity of friends who put a roof over my head (and often food in my belly), and having short bursts in hostels when I can't find a place to stay. London's hostels are full of people like me, all stuck. We have smartphones and nice clothes to wear, but we're still scraping by at the mercy of other people's kindness.

And remember, even if you can raise enough money to support yourself by turning a trick here and there, or tutoring rich GCSE students living in Notting Hill, you can't move house, get a new phone contract, or do anything that requires a credit check, because you don't have a reportable income. Like many in London, you're stuck with illegal sublets on gumtree and dodgy jailbroken iPhones on eBay, making you feel like you don't quite belong anywhere.

Some people are less fortunate than me. My father has been scraping together and offering me every last spare penny, and my mother has been insistent on sending me money for things like contact lenses and dentist



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appointments. But so many people don't have this, and I've witnessed people giving up on their dreams of being a doctor because they know they'll never be able to afford to finish. There is some help available - the Student Support Fund (which you're helpfully emailed about as you crawl towards the end, as though they know you're facing hardship!) offers up to £2,000 (sometimes a grant, sometimes a loan) for unexpected expenses. It's great that they do this, but two grand doesn't go very far when you're trying to fund an average of around six months of expenses that it's hard to argue were unexpected when everyone knows how expensive living in London is, and how the system works.

\\ I've been one of London's hidden homeless since September, taking advantage of the generosity of friends who put a roof over my head \\

Some supervisors are more helpful than others – some help you find grant extensions, put you on other projects, or employ you as research assistants, while others misguidedly believe that a project with three years of funding should take you three years and if you don't manage to finish it in that time, it's your problem. It shouldn't be the case that your very quality of life is dependent on whether you get an empathetic supervisor, have a partner on whom you can be dependent, or have well-off parents who are willing to give you handouts, particularly when you're in your late twenties.

Unlike an undergraduate or master's

degree, you don't do a PhD to get rich. People with PhDs will earn, on average over their lifetime, less than someone with only a masters degree, thanks to these years of very low income and a minimal difference to later earnings. You do a PhD because you're passionate about something, and it's easy to see how the prospect of years of just about getting by could be off-putting and a huge barrier to entry for lower-income students, even without the challenges caused by inadequate support.

Other countries do it better; the UK is one of the only countries where doctoral candidates are treated like this. In most countries, PhD studies afford a level of respect that brings with it a consistent and adequate salary. By forcing us into unpaid work, our background becomes crucial, and those without the right background just don't have the same opportunities. When postgraduate students don't get equal treatment to our friends who got 'real jobs', the system becomes inherently classist. In the same way that the working class were kept out of universities in the past, they're still being forced out now. Academia used to be a place where the curious rich could play, but we moved on from that hundreds of years ago, and now it's full of passionate people wanting to make a difference and break new grounds of knowledge. Why do we insist that only the privileged get the pleasure of doing that?



Referendums are not democratic

Divyen Vanniasegaram condemns the votes as a replacement for effective democracy

eferendums have been leading, and will continue to lead, to the slow erosion of Parliamentary sovereignty. The UK is a Parliamentary representative democracy, where electorate elect a the representative from their constituency to represent them in Parliament. These members of parliament should vote and act in good conscience and in what they believe is in the best interest of their constituents;



we do not elect delegates to put across our everyday whims on every single issue. Anna Soubry MP made this exact point during the debate on triggering Article 50, saying that she did not go through the lobbies voting for what she believed in but rather what she had promised her constituents.

For too long, MPs have been willing to use sloppy arguments to justify the use of referendums, such as 'giving power to the people', whilst displaying complete disregard for their duties as MPs and shifting responsibility for decisions from themselves onto the public. Referendums introduce a competing force of sovereignty to Parliament - an alternative way for the people to have their say - and whilst this appears to give the people greater choice and control over their lives, it merely allows simplistic populistic sentiments to dominate. This was seen on both sides of the debate in the recent EU referendum. Referendums essentially allow for a tyranny of the majority, no matter how slim, to dictate what happens, and without the safeguards that Parliament allows for this would lead to slow erosion of rights for minority groups. Parliament is a far better medium through which to make key decisions, where members can have hours of debate followed by scrutiny by committees, and decisions not only have to pass through the Commons but the Lords as well, adding further safeguards against rash and unwise decisions.

Referendums not only lead to poor outcomes but also allow one topic to eclipse all others: the referendum on leaving the EU was over seven months ago and is still dominating the headlines. This distracts us from other important issues of the day such as the strife of our NHS, prisons and housing. These are far more important to the prosperity of this country than our membership of the EU.

Referendums are incredibly divisive and for the unity of a country it is far better that the government and parliament make these decisions on our behalf, as they are too important to be used to sow division and contempt. These divisions will be felt for years to come and have fortified the feelings of separation between young and old, north and south, urban and non-urban, immigrants and non-immigrants.

The people may have been able to make their decision clear, but at what cost to Parliamentary sovereignty and to wider society?



Query your consumerism



Valerie Wischott thinks we should all hold ourselves accountable for our unsustainable lifestyles

\\ We are used to the permanent availability of all our desired products \\

buy these flip-flops from H&M for every summer - after one year, they're broken. But it doesn't matter, they're only €7.″ "I already booked my journey back home for Christmas holidays – got a flight for €10!″ All of you have probably said something along these lines at some point. These quotes reflect the attitude that dominates today's consumer behaviour. We are used to the permanent availability of all our desired products, from food to fashion to flights, and we can acquire them at low prices. At the same time, the world is worrying about climate change, desertification and pollution, and thus establishes goals and agreements in order to protect the environment. A common sense view on the causality chain of the environmental destruction reveals that our consumer behaviour is at the top of this chain and represents an essential factor with regard to the changes of the environment. Everyone's daily life contains consumption decisions which have a direct or indirect influence on the



environment. While some things seem obvious, others have to be investigated more carefully in order to trace

\\ The cultivation of one kilogram of avocados needs more than five times as much water as one of tomatoes \\

back their influence. In doing so, the whole life cycle of a product or a service has to be taken into account.

To start off, what plays a major role in all our lives? Food! Our first association with the environment might be the consumption of animal products, which has come to the fore due to the currently increasing popularity of vegetarian/vegan lifestyles. Animals need area to live. They also need food, which in turn needs area and water to grow. The need for area which is particularly high for cattle ranching - results in the deforestation of rainforests. the However, assumed sustainable lifestyle which excludes the consumption of animal products can have its drawbacks: The increasing demand for the avocado, with its vitamins and unsaturated fatty acids being one of the most popular 'superfoods',

is causing a loss of forest and needs huge amounts of water (the cultivation of one kilogram of avocados needs more than five times as much water as one of tomatoes).

Besides food, the mobile phone has become the centre of our lives. The rapid development of new technologies leads to an ever-decreasing lifespan of our electronical devices: we replace products because it is difficult to repair them or to benefit from technological innovations. The problem is that smartphones contain up to 60 different chemical elements (30 of which are metals) whose extraction and subsequent disposal cause contamination of soil, water and air.

Speaking of contamination leads us to the consumption of fashion, which has transformed into 'fast fashion' during recent years, with vast quantities of clothes being produced at an ever increasing frequency (clothing

\\ There are numerous and very easy approaches to starting a more conscious and sustainable consumption \\ production doubled from 2000 to 2014). To point out just one of the issues with this, the immense need for water in cotton production resulted in the reduction in area and water level of the Aral Sea by 50% from 1950/60 to 2007. Issues connected to that include the contamination of groundwater and agricultural products due to sand storms.

Another aspect of our lives that has come to feel perfectly natural is travelling. How long ago was your last

\\ How long ago was your last longdistance journey? \\

long-distance journey? For me, its's less than a year. One problem with tourism is the transportation to the destination: the aeroplane is the biggest transportation polluter, releasing the most CO₂ emissions per passenger kilometre and being used for the longest distances. An additional aspect is the on-site influence of tourism, including land degradation and the overuse of resources like land, fresh water, and energy.

These examples show how we can be confronted with consumption decisions every day. The way we consume things as a matter of course can be challenged by tracing



back the upstream and downstream impacts of our consumption decisions both on the environment and living things. For me, it is not about choosing a radical lifestyle and committing myself to the abstinence of all kinds of enjoyment. The human being strives to hedonism, social affiliation and self-actualisation and the consumption of the discussed products and services makes a contribution to satisfying these needs. For me, it is about starting to reflect our manner of consuming things and to find a balance between uncontrolled consumption and forgoing. There are numerous and very easy approaches to starting a more conscious and sustainable consumption. If you haven't had a coffee yet today, why not use a reusable cup instead of throwing away the paper cups each time? Why not take the train from time to time instead of the plane for short distances? Why not trying to repair the hole in your jeans instead of throwing it away or even look for a more durable garment next time?



Being Black and Muslim in the UK



Mohamed Omer discusses his intersecting identities

\\ As a Black Muslim, I also draw hope, optimism and strength from my faith \\

he US is what most of us think of when we think of Black Civil Rights, which is where the movement was the

most prominent, but seldom do we realise or remember what people in our own communities go through. The recent race row at Oxford University, in which students received an email from staff warning them to be 'vigilant' because a black graduate, Femi Nylander, was seen walking through college grounds, is a true wake-up call. Another investigation last January was called at Cardiff University after 32 undergraduates were suspended from clinical practice, after several others of African heritage, complained

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about a play performance where a medical student "blacked up" to impersonate a lecturer. Suddenly the wakeup call becomes an edgy,



max-volume Monday-morning alarm. These are two of many examples from the university (Latin: universitas, "a whole") scene – yet we're supposed to be on the side of New Year where the grass is greener.

September 2017 sees the launch of the Black Studies course at Birmingham City University, the first of its kind in all of Europe. Given that Black Studies has been a part of US higher education since campaigning during the 1960s, the availability of courses in the UK is long overdue.

Campaigns such as Why is my Curriculum White? show that these hopes are mirrored by students. A survey conducted in 2014 by the NUS Black Students Campaign found that, "42% did not believe their curriculum reflected issues of diversity, equality and discrimination." This did later lead to Universities Scotland producing the race equality toolkit, Embedding Race Équality into the Curriculum, and OCR rolled out a new module in GCSE History called Migration to

Britain c. 1,000 to c. 2010, highlighting early Black presence in Britain. Steps forward and yet we are moving backwards – maybe we are just moonwalking?

I personally believe debates are won on the ground, with grassroots activism and with the patience to stand face-to-face with your opponent, bear their insults, then convince them that they were mistaken.

The problem is, we have some walls in our own social structures. As a Black Muslim myself, with a bristling black beard, I really do feel locked in a cage that contains me and my painful silence. That is, me speaking out would not be seen as 'grassroots activism'. Instead, I would simply be lending to the stereotype of an aggressive Black man or terrorist. The most hurtful of these experiences happen when my mother is involved. She may be driving along, then as she looks over her shoulder in that elegant hijab, she would be met with a terrifying racial slur from the driver on the right. And it's so frustrating in those situations when I know I can't do anything about it. If you turn to the driver and say "Hello there", he may accuse you of blurting "Allahu Akbar" (I have seen this happen to others before, and so you just do nothing.

But, as a Black Muslim, I also draw hope, optimism and strength from my faith. Personally, I look to those moments when my Prophet Muhammad received complaints from a Black companion that another companion made a racist remark, so Muhammad rebuked the offender "You are a man in whom there is some Jahiliyyah (ignorance)". That transformative power completely changed the sentiments and views of an entire nation within the span of a 23 year struggle.

\\ My Islam is very relevant to my blackness. It is a pool of inspiration for me as a Black man, and it provides a framework for how people of all ethnicities can come to know each other \\

The culmination of this was when Muhammad stood up on Mount Arafah and delivered the famous Farewell Sermon (included in the Folio Book of Historic Speeches), among the final few words he imparted on the listeners were:

"... An Arab has no superiority over a non-Arab nor a non-Arab has any superiority over an Arab; also a white has no superiority over black nor a black has any superiority over white except by piety and good action."

A most profound statement, which we learnt from our childhood days in the mosque, and have never forgotten since. And the whole story teaches me that no matter how big the hurdle is, with patience and perseverance any reform is possible.

Nowadays, there are those who say religion belongs in the past, but based on my experiences, I can say that my Islam is very relevant to my blackness. It is a pool of inspiration for me as a Black man, and it provides a timeless framework for how people of all ethnicities can come to know each other. Mahatma Gandhi did say: "When I closed the second volume (of the Prophet's biography), I was sorry there was not more for me to read of that great life."

Next week sees Imperial ACS collaborating with ISoc to explore the fascinating relationship between Islam and Black History during Imperial's Discover Islam Week.



Putin has a huge power hard on



Charles Titmuss explains why Putin is probably ecstatic right now

\\ Through a combination of good luck and shrewd foreign policydecisions, Putin is in a great place \\



has a hard on for one man: himself. Whether he's shirtless fishing, riding a horse, or killing a bear with his bare hands, Putin's got a thing for being the manliest manly Russian man around. And right now he has the added advantage of being the shrewdest and luckiest foreign policy operator in the world.

Russian foreign policy for the last 20 years has been one of resurgence. Russia has been a major player in Europe since the 18th Century with the establishment of the Russian Empire, and was a major player in the Napoleonic Wars in the early 1800s, the Crimean War, and numerous wars against the Ottoman and Persian Empires. At the start of the 20th century, Russia initiated the Russo-Japanese War and took part in the First World War. In 1917, the Soviet Union was created, and the Empire became the USSR. The Soviet Union would allow Russia to project its power worldwide like never before, defeating Nazi Germany, and engaging with the US in the Cold War. Following the collapse of the Berlin wall in 1989, and the subsequent collapse of the USSR and its economy, Russia has been comparatively weak.

This is the historic hangover that Putin is operating with: he wants to re-elevate Russia back to the superpower status that it once possessed. With this goal of international influence in mind, it is possible to consider Putin to be arguably one of the world's most skilled international politicians and certainly one



of the luckiest. Despite economic, social and political turmoil, somehow Putin has managed to surf the wave and get to the beach shirtless and smug as hell. Russian influence and prevalence in foreign policy is at the forefront of everyday life, more so than at any time for the past two decades.

To support such a bold assertion, it is critical to look at Russian foreign efforts: Putin has managed to pull off the first successful military intervention in a Middle Eastern country by a foreign power in living memory. By supporting the Assad regime, an established force in Syria with significant local support, Putin has been able to maintain Russian influence in the region, as well as humiliate the West in its rather pathetic and non-committal effort to

support the rebellion. Putin has also been able to manipulate the presence of so-called Islamic state to give his brutal campaign and the Assad regime some legitimacy. Air strikes are always conducted against 'terrorists', which is apparently anyone that has an objection to being indiscriminately bombarded and gassed.

The war in Syria has also had a possibly unforeseen benefit for Russia the refugee crisis. Nearly five million people have been displaced internationally as a result of the civil war, sparking the migrant crisis for the EU and significantly impacting international relations between its members. Countries such as Greece, Hungary and Romania have had to bear

\\ Trump is unashamedly pro-Russian, presumably because one would-be tyrant appreciates another, actual tyrant \\

the brunt of this, which has led to increased tension between nations in Western and Northern Europe that have tried and succeeded to dodge sharing the burden. It has also led to the increased

popularity of anti-EU and migrant demagogues, threatening the break-up of the EU. The EU is a significant economic opposition force to Russia with members that were once a part of the USSR economic sphere. Any weakening of this coalition is to Russia's benefit.

Speaking of foreign wars, let's not forget Ukraine. Following the Orange Revolution and the establishment of Petro Poroshenko, Russia has decided to gently use military coercion to bring the nation back into the fold. This bears some similarity to the invasion of Georgia, or the subjugation of Chechnya. Russia annexed the Crimea and is currently fighting a clandestine war in the Donetsk region in order to destabilise the pro-western regime. The preoccupation of western media with Senor Trump has allowed the increasing violence of this war to go almost unnoticed.

Finally, there is El Trumpo himself. He is unashamedly pro-Russian, as are members of his advisory council, presumably because one would-be tyrant appreciates another, actual tyrant. Putin no longer has to worry quite so much about things such as sanctions that would be almost guaranteed under the Obama administration. Some of those sanctions previously imposed may be lifted in order to cement the collaboration between the White House and the Kremlin.

So all in all, through a

combination of good luck and shrewd foreign policy decisions, Putin is in a great place. Despite the challenges to the Russian economy, he has been able to expand Russian hegemony internationally, and is now in an excellent position to continue to do so: the US and EU, previously major opponents to Russian expansion, have either been rendered friendly or are preoccupied with internal political problems, and Russian military prestige is at

\\ The US and the EU, previously major opponents to Russian expansion, have either been rendered friendly or are preoccupied//

an all-time high following the successful stabilisation of the Assad regime. The question of 'where next?' is an important one. Latvia, Lithuania and Estonia are all previous components of the Russian Empire, and have large native Russian populations, perfect for another uprising situation as in Ukraine. However, these nations are NATO allies, so such a move could be disastrous for Russia and the world. We shall have to wait and see.

Telix



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The challenges facing early career sustainable scientists

Alexandra Hicken talks to colleagues from the Network of Sustainable Scientists about the challenges that complicate a career in sustainable science.

s a director on the executive board of the Network of Sustainable Scientists and Engineers (NESSE) and a PhD student in the Chemistry Department funded via the Grantham Institute, it may appear as though my future career path in sustainable science is all but decided. This, however, is far from true.

\\ My desire to pursue a career in sustainable science post-PhD, and to ensure that my research efforts have a 'wider impact', outside my niche area of chemistry, is as strong as ever \\

Sustainable science has been defined as "an emerging field of research dealing with the interactions between natural and social systems, and with how those interactions affect the challenge of sustainability". My desire to pursue a career in sustainable science post-PhD, and to ensure that my research efforts have a 'wider impact', outside my niche area of chemistry, is as strong as ever. However, the challenges facing early career sustainable scientists in their quest to begin this career path are complex . Now, in the third year of my PhD, I have begun to explore these challenges along with

the help of the thoughts of my fellow NESSE members.

Lack of a clear career path to follow | Cristiano Verrone, Postdoctoral Researcher, DTU, Denmark

Working in a lab, it is possible to be in control of the outcome of my own work and this predictability can be nice. In contrast, perhaps the most troubling thing facing researchers who wish to embark in a career in sustainable science is its unpredictable nature - it is not currently clear what a career in sustainable science actually entails. "In other scientific disciplines, PhD students can easily move into industrial research, academia or even unrelated fields such as banking, with the path they need to follow to achieve these goals being well defined. However, this is not the case with sustainable science. In order to have real impact, it's important for sustainable scientists to be able to advise professionals in the public and private sectors whilst still being able to perform interdisciplinary research. This 'dream scenario' almost certainly does not currently exist for early career researchers and as such, it is difficult to know what steps to take after finishing PhD research.

\\ It is not clear what a career in sustainable science actually entails \\



\\ mattwalker69

A challenge is the interand transdisciplinarity in sustainable science | Daniel Pleissner, Assistant Professor, Leuphana University of Lüneburg, Germany

Due to the complex problems the world is currently facing, such as an ever increasing population and rising levels of pollutants, neither physical and natural nor social scientists possess the skills needed to tackle these challenges in discrete groups. But sadly, training in the form of research is usually given in very niche areas and so PhD students are rarely equipped with the skills to be truly interdisciplinary researchers. The long time needed for the impact of such research to manifest itself, at least in terms of citations, further complicates things, despite its broad social and economic impacts. This discrepancy could be mitigated through ensuring that interdisciplinary teams of researchers exist to tackle problems together and more importantly, through making funding available to such teams from research councils.

Limited role models and lack of respect for sustainable science field in traditional science settings | Natalie O'Neil, PhD Student, University at Albany State, USA

Many people chose a specific career path as a result of the influence of a strong role model. But in sustainable sciences there appears to be no one to contact for advice or support. This lack of role models in sustainable science is cause for concern for early career researchers. Additionally, sustainable sciences are often viewed as a 'watered down' version of science, especially from researches in 'pure' scientific disciplines. This further intensifies the feeling of a lack of support from supervisors or the department that they are researching in order to continue with sustainable science research.

. . .

Fortunately, for many early career sustainable scientists, the desire to continue along a career path that may be ill defined and treacherous, but allows them to work towards achieving a sustainable future, is still strong. Working together with other researchers and professionals as well as joining networks to promote sustainable science through all scientific disciplines is one way they can ensure that this is the case. Personally, it is important that I play a role in the promotion of sustainable sciences either through my research in the chemistry through department, or extra-curricular work as a volunteer for a sustainable science network. Over the coming weeks, NESSE will be conducting research into the experiences of early-career researchers wishing to do sustainable science in order to see what can be done to help. This will lead to NESSE being able to support early-career sustainable scientists in order to ensure that the challenges they face aren't faced alone.



\ U.S. Department of Agriculture

Telix

Helping out a bee in need

S C I E N

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The global bee decline is endangering more than just our multi-million honey industry. With bees being the predominant and certainly the most economically significant pollinator, we literally can't afford to lose them. Bee enthusiast Sarah Barfield Marks talks bees and what you can do to help them.

ver the past few years, discussion of the rapid decline of bee populations has intensified. Every week there seems to be another alarming headline implying that honeybee population decline is something we should care about. Do bees truly impact the world as we know it? Wouldn't we do just fine without them? Exploring the subjects that bees have mastered may be a good way to start answering those questions.

Bees lead complex lives that carefully balance our ecosystem. Only bees make honey, so how exactly is this uniquely delicious food created? Honeybees travel from one plant to another to sip nectar which goes into their honey tummy (different from their

\\ Many flowers, such as pears, produce larger and more homogenous fruits when often visited and properly pollinated by bees \\

food stomach). In the process, they pick up pollen on their legs and body from each plant. As they move, they transfer pollen between male and female plants of the same species to pollinate them. Once their honey stomach is full, they fly back to the hive and pass the nectar to worker

\\ Pollinating almonds each season in California with supplemental hives costs the state around \$180 million (over one million extra needed from outside the state) \setminus

bees. Worker bees chew the nectar while excreting special enzymes until the nectar becomes honey. Honey is then placed in wax cells and fanned by bees using their wings until it is ready to be capped with wax for storage.

> hedicine If bees could lecture at Imperial, they might teach...

the food chain. Worldwide, one third of food crops from blueberries to sweet potatoes are in some way bee-dependent. Not all are completely reliant on bees, but the effect of bees can be seen in most. Many flowers, such as pears, produce larger and more homogeneous fruits when often visited and properly pollinated by bees. Can humans truly hope to develop such a perfect pollination process to replace the one that bees have evolved over millions of

Honey is a natural antibacterial fluid still used in hospitals today.

Mathematics

Chemistry The hexagonal honeycomb uses the least amount of wax to create the largest area to store honey (wax is energy intensive and it takes 8 oz. of honey to produce 1 oz. of wax). On a side note, this same shape allows ice to achieve maximum space between molecules giving it a lower density than water.

Honey is the bees' winter food source when it is too cold to forage. The rest of the year, bees are critically important to pollination. Beyond their centrality to

many plant life cycles, bees have an important role in

years? Successful pollination is so important that farmers in places like America are now forced to hire trucks filled with beehives to pollinate their crops. An article by Slate

\\ Ongoing research at Imperial and worldwide has cited pesticides as a leading factor of bee decline \\

cited that renting a hive can cost up to \$180 per season during peak almond production. Pollinating almonds each season in California with supplemental hives costs the state around \$180 million (over one million extra needed from outside the state)! Thus, honeybees are so important that companies

Bees only seal the honey cell with wax when the moisture content of the honey reaches around 20% (too little moisture and the honey starts fermenting).

Bees dance to communicate location of fr on "

are paying huge amounts to compensate for the lack of bees in their area. But what exactly is causing the decline? Ongoing research at Imperial and worldwide has cited pesticides as a leading factor of bee decline. Climate change, mites, and disease have also been investigated as possible causes. Trucking bees over long distances puts the colonies under greater stress and increased risk for pathogen transmission, as infected colonies are no longer isolated. We're now more informed

\\ Bees seem small and uninterested in help, though help is clearly needed \\

on the problems facing honeybees, but what are we supposed to do about it? Bees seem small and uninterested in help, though help is clearly needed.

Starting your own hive is one idea. This is being done from the Essex countryside to New York City rooftops and it's easier than you think! Smaller contributions include planting bee friendly plants in your garden, but most importantly, without using pesticides. Avoiding pesticides is a very simple and deeply powerful commitment you can give to bees. Just let nature do its thing and pull out weeds that you can't stand occasionally (although weeds are also bee friendly). Lastly, even bees like a drink or two, so keeping water in a bird feeder or shallow dish for them is also beneficial.



culture... felix

20th Century Women | All hail Annette Bening

Annette Bening is outstanding as Dorothea in Mike Mills' exploration of motherhood \\ Alamy



Mike Mills' love letter to the women that raised him has its flaws, but its uncanny evocation of shared nostalgia, and exceptional acting talent, make it a heartfelt piece of emotional cinematic drama

promotional material for 20th Century Women, director Mike Mills' latest work, there's a website called 'My Mother Before Me', where users can upload pictures of what their mother looked like before they had children. The shots, which are hazy and saturated, each come with a brief description from the child of what their mother was like; what is noticeable, however, is how superficial these descriptors are. They all seem to center around what the mothers did, or how many children they had, or how they looked - few delve into the emotional life of a mother.

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It is this disconnect, between the thoughts and feelings of parents and children, that Mills explores in 20th Century Women. Like his last film, Beginners, 20th Century Women was created with material mined from Mills' own childhood; it is no surprise, then, that he described the film as "a collective portrait of the women who raised us". Taking on the mantle of his mother is Annette Bening, who plays Dorothea Fields, a draftsperson born into the Depression, who had one child late in life, and has since divorced her husband; rattling around in a mansion on the Californian coast, Dorothea and her son, Jamie (Lucas Jade Zumann), form the emotional core of the film. Attached to them are a variety of lodgers and friends: Abbie (Greta Gerwig), a young punk who escaped the West Coast for New York and art school, only to return following a diagnosis of cervical cancer; William (Billy Crudup), a mechanic and handyman who fixes up the house in exchange for rent; and Julie (Elle Fanning), Jamie's best friend whose psychiatrist mother forces her to attend group therapy.

At the beginning of the film, Dorothea, fearing that Jamie is slipping away from her, enlists Abbie and Julie to help raise him into a good man. This forms the key nucleus of the drama, which could best be described as intimate, but Mills never lets us forget that a seismic cultural shift is on the horizon: Reagan, the War on Drugs, Y2K. This bigger picture spills over into the characters' lives most obviously towards the end of the film, when a group of them sit down in Dorothea's house to watch Jimmy Carter's 'Crisis of Confidence' speech. Dorothea declares it "beautiful", but another character says "it's all over for him". The other character is right: two short years after the speech Reagan will enter the White House, signalling the end of Mills' carefree vision.

Just as with Beginners which centred around the relationship between Oliver and his father Hal, who came out as gay in his mid-70s, following the death of Oliver's mother - 20th Century Women examines the distance that is established between parents and children. Bening's Dorothea is a cipher: at one point Jamie asks her "do you think you're happy?", to which she responds "seriously, you don't just ask people questions like that. Especially your mom." In another scene, after being lent feminist literature by Abbie, Jamie reads aloud a passage of Zoe Moss' It Hurts to be Alive and Obsolete: The Ageing Woman: "I am gregarious, interested in others, and I think intelligent." Jamie quotes, "All I ask is to get to know people and to have them interested in knowing me". Dorothea, visibly angered by this display, cuts Jamie down: "I don't need to read a book to know about me."

Just as Abbie and Jamie are trapped between eras in the long stretch from the death of JFK that signalled the end of the American dream, and the rise of Reagan that signalled a new dream, for some and not all - Dorothea is caught at a turning point in the 20th century: old enough to be admitted to flight school, but too young to have been able to pilot in WWII; born late enough to trailblaze a way into being the first draftsperson in the company, but too early to break through the residual glass

ceilings blocking off the top of the career. While the film might revel in its celebration of 1978 – Talking Heads had just released their first album, Times Square was still dirty, and the hardcore punk scene was emerging in Southern California – Jamie and Dorothea are both characters who are unmoored to a particular time, trapped between eras.

Mills' directorial style is divisive, marked by his complex collaging of words and images; the use of voiceover recurs throughout the film, moving forwards and backwards through time, the epitome of an omniscience narrator. At certain points this is used for devastating effect, such as when Dorothea tells us she will die before the new millennium, from cancer caused by the cigarettes ever-present in her hands; but at other times the use of stock images and pictures can have a more distancing effect, and can easily seem twee.

Still, Mills' greatest achievement with 20th Century Women, aside from the beautiful screenplay, is the room he gives his actors to reach inside themselves and deliver top performances. Bening is exceptional as Dorothea, alternating from motherly love to stone-cold wit, and always in complete control of her body language. Gerwig delivers possibly a careerbest performance, allowing her Abbie to plumb emotional depths that usually eschew her in the kooky roles into which she is typecast; Fanning similarly is cast against type, her innocent image playing off against her secret life of smoking and sleeping around.

Last year, Mills said in an interview that "It felt like I was raised by my mom and sisters, so I was always appealing to women in the punk scene or women in my world. I always leaned to them to figure out my life as a straight white guy. So I wanted to make a movie about that." 20th Century Women is a fitting tribute. A tribute to a particular time, and a particular place, but above all a tribute to the funny, beautiful, tender women who raised him.

felix <u>culture</u>

Revolution: Russian Art 1917 – 1932 | A terrible festival of dead leaves



Bolshevik, Boris Mikailovich Kustodiev, 1920 \\ State Tretyakov Gallery



Claire Chan

Revolution: Russian Art 1917 – 1932 is on at the Royal Academy until 17th April 2017

Tickets from £16

he Royal Academy's ambitious new exhibition chronicles a troubled period in Russian history,

from the overthrowing of the tsarist regime in 1917, through the years of civil war, to the consolidation of power by Stalin after death. In this window of time, art in Russia experienced a brief burgeoning that was soon to be violently truncated. A major exhibition of postrevolution artists took place in Leningrad in 1932 – this was to be a last gasp of creativity before the suppression of "formalism" and the persecution of artists by Stalin.

Rather than artistic merit alone, the selected works illustrate the upheaval and changing mood of the times. A range of media is included – not just paintings, but also film, photography and all manner of paraphernalia: posters, "agitational porcelain" decorated with communist symbols, banners, and textiles. Artworks are not viewed as standalone pieces, but placed firmly in the original context in which they were created. Beginning with glorified portraits of Lenin and ending with Stalin's politically correct socialist realism, the exhibition leads us through 11 rooms and over 200 artworks, many of which have never been exhibited in the UK before. A great clash of ideas is on display. Rooms of propagandist work, staunchly promoting Bolshevik ideals, contrast sharply with the abstract modernism of the Russian avant-garde. The futuristic, new-age depictions of machinery and

industrialization, such as Aleksandr Deyneka's Textile Workers and Arkady Shaikhet's Komsomol at the Wheel, are juxtaposed against nostalgic images of the birch forests and provincial life in pre-revolution Russia. In the room 'Fate of the Peasants', utopian visions of collectivised farming and golden harvests strike a dissonant chord against Kazimir Malevich's faceless peasants, and the mistrustful eyes of Boris Grigoriev's Old Dairy Woman.

'Brave New World' is a large room celebrating the explosion of artistic ideas in the years immediately following 1917. Many artists were initially optimistic about the revolution, viewing it as a chance to develop new styles of art for a modern Russia. Experimental styles and novel ways of looking at art proliferated; among them are the movements of Suprematism and Constructivism. On display are a range of works from some of the most important artists of the period, including Wassily Kandinsky, Lyubov Popova, Marc Chagall, and El Lissitzky. Dziga Vertov's short montage film Man with A Movie

Camera is shown elsewhere in the exhibition, while the Suprematist painter Malevich has a room to himself.

Indeed, two rooms are dedicated to artists who were invited to showcase their work at the 1932 Leningrad exhibition: Malevich's room is an almost exact recreation, displaying his reductive Suprematist works such as Black Square alongside more representational art created under Soviet pressure. The blank faces of the people in his paintings evoke the loss of identity and an uncertain future in the post-revolution period. The second room, dedicated to the artist Kuzma Petrov-Vodkin, is interesting, but rather less impressive.

A slightly ominous air hangs over the exhibition. Despite the determinedly cheerful portrayals of heroic workers and the stoically solemn faces of the great leaders, there is a vague sense that they are all marching towards certain doom. This is emphasised by little details (a kerchief of Lenin with Trotsky's face carefully cut out from one corner) and more obvious signs, such as the artwork of ration cards and wartime posters. Even the exuberance of the avant-garde is undercut by knowledge of the dreadful fates that lay in store for both the artists and the subjects of their paintings – from Anna Akhmatova to Vsevolod Meyerhold, few of them escaped the coming purges unscathed. In a high, domed room off to one side, a reconstruction of one of Vladimir Tatlin's delicate "flying machines" spins lazily in endless circles. Visually stunning, it seems a symbol of the grand aspirations of the era which ultimately never took

off the ground.



ogistically alone, the new David Hockney exhibition at Tate Britain is a marvel. Nearly 150 pieces spanning the breadth of Hockney's career – paintings, sketches, photography, video, and drawings – have been assembled in a thirteen-room experience. Many of the pieces have been borrowed from David Hockney Inc., or are owned by the Tate itself, but an extraordinary number have been sourced from other art museums - V&A, MoMA, The Metropolitan Museum of Art, Smithsonian, Ludwig Museum etc. - and at least

\\ No matter how long you stare at the images online, Hockney's art, as with all great art, can only be fully appreciated in the flesh \\

a third have been obtained from private collections. The team at the Tate deserve a great deal of credit in the organisation of this, the largest ever arrangement of Hockney's work.

The exhibition moves chronologically through Hockney's career, with each of the rooms highlighting a significantly different period in the artist's work. Many of Hockney's most famous works are on display – A Bigger Splash (1967), American Collectors (1968), Mr and Mrs Clark and Percy (1970-1), Pearblossom Hwy. (1986) – images so embedded in 20th Century art history one does not expect to uncover any new details. It comes as somewhat of a surprise then when, for example, the background fauna of the L.A. hills in Portrait of an Artist (Pool with Two Figures) (1972) glistens under the exhibition lights: a dance choreographed into the painting, with the explicit instruction to be performed

only under the gaze of a real human eye. No matter how long you stare at the images online, Hockney's art, as with all great art, can only be fully appreciated in the flesh.

For a Hockney aficionado, however, much magic in this exhibition lies in the smaller works - sketches, drafts, ideas - that find their soul lurking in later masterpieces. The sixth room, 'Closer Looking' contains a multitude of such pieces from 1960 - 1999. Here, one can see the beginnings of Savings and Loans Building (1967) in the 1966 drawing Place des Canons, Beirut (1966) and the unmistakable style of Centre-Jour in the French Style (1974), in Window, Grand Hotel, Vittel (1970). The room also contains this reviewer's favourite find in the exhibition: The Great Pyramid with Palm Tree and Car (1963) - a piece of triangular graph paper, on which the artist has sketched a crude tree and car - which itself serves as the draft for Great Pyramid at Giza with Broken Head from Thebes (1963). Sadly, the latter does not make an appearance at the Tate, although it did pass through Christie's in 2013 for £3.5m.

While the evolution of Hockney's method is evident throughout, so too - though more subtly - is his retention of stylistic elements, themes, and muses. Long winding roads and rapid perspective shifts between the foreground and background are used continuously from Arizona (1964) to Going Up to Garrowby Hill (2000). And of the recurring characters in the works, Hockney's mother and Paul Kasmin - the art dealer who discovered a young David in the sixties - share the good fortune of being depicted in both painting and photography.

One may be forgiven for assuming the real meat of the exhibit lies in the middle rooms, but given both Hockney's proficiency and creativity right up to present - the most recent works here were completed just last year - this is far from the case. The

final room in the exhibition showcases the artist's recent iPad drawings. Here, backlit screens display not only the final product but also the evolution of the drawings in the form of screen-captured videos. The audience has the rare chance to see Hockney's – or any artist's for that matter – mind in action. On the iPad, Hockney repeatedly adds layer upon layer of different shades to transform the often-harsh digital palette into something far more agreeable to the eye. On larger works, he constantly jumps across the workspace; adding small

\\ Few would question Hockney's reputation as one of the most important and influential British artists of the last halfcentury \\

details to a hand, followed by a change in lighting to a jug, and then back to the hand. And most interestingly of all he never erases, never clicks 'undo'. If the structure of an object no longer works, it is simply drawn over and buried beneath the new layer.

Few would question Hockney's reputation as one of the most important and influential British artists of the last half-century. In many ways, then, this exhibition serves more as a reaffirmation of the fact, as opposed to the revelation of it. What is revealed to large audiences for the first time, however, is not only Hockney's willingness to embrace new mediums and styles but to harness and mould them in such a way that they become as quintessentially 'Hockney' as his paintings from the seventies. And he's still doing it. And he's nearly 80. And it's brilliant.

Hockney makes a splash at this Tate Britain retrospective



David Hockney, Portrait of an Artist with Two Figures \\ David Hockney, Private Collection



Adam Gellatly

David Hockney is on at the Tate Modern until 29th May.

Tickets £17.70 adults; £15.90



Romeo and Juliet | Updated and abridged



\\ Ludovic des Cognets





Romeo and Juliet is on at the National Theatre until 24th February

Tickets from £12

egardless of whether you're madly in love, or frankly you've had enough of it this week, there's still something inherently appealing about the tragic tale of Romeo and Juliet.

Squeezed into a running time of just one hour, the National Theatre's interpretation sets a shortened version of the original text in a modern time. Occasionally we missed out on the edited dialogue (I could not help but pity the charismatic Mercutio, whose lengthy and elaborate monologue of Queen Mab and the fairies was cut rather cruelly short); however, this well-choreographed and dynamic production kept all the key scenes, succeeding in telling the story in an engaging and moving way.

Romeo Montague, initially besotted with an unseen Rosaline, is persuaded to attend a party hosted by Capulet, where his close friend Mercutio hopes Romeo will let his eye wander. Romeo, hoping that he will catch a glimpse of Rosaline, agrees, and the minimalist set is transformed into a vibrant party scene with streamers, lights, and balloons suspended from a netted canopy. Through a crowd of swirling and colourful costumes, Romeo catches sight of Juliet, instantly falls hopelessly in love with her - all feelings for Rosaline vanishing. The young lover's first whispered meeting under the starry canopy seems all too brief, before Juliet is near-dragged away to be told that Romeo is the only son of her family's worst enemy, Montague. Abruptly the conflict between houses stains the happy scene, and we start to notice the cultural

differences between the two families. Juliet appears in a mixture of traditional Indian garments and 'noughties' neon, whilst Romeo's local church features a gospel choir (complete with a rousing rendition of 'O Happy Day') led by Friar Lawrence's

\\ Squeezed into a running time of just one hour, the National Theatre's interpretation sets a shortened version of the original text in a modern time \\

female equivalent, Sister Lawrence, hinting at Romeo's African roots. Though this difference is never directly addressed, the underlying clash of cultures provides an interesting context for the feud between houses, which Shakespeare leaves intentionally unexplained.

But the lovers prove us wrong, with Romeo swearing his love to Juliet as she sits on her balcony. The next morning the young lovers meet, and are secretly married by Sister Lawrence.

It almost seems too good to be true when Mercutio and the love-struck Romeo come across Juliet's fiery cousin Tybalt who's ready to pick a fight. Never have I seen Tybalt played with such attitude – by a woman may I add – who's knife to Mercutio's chest sends bloodred rose petals flying across the stage. Chalk outlines drawn around the bodies of Mercutio and Tybalt turn the stage into a crime scene, and serve to remind the audience of the events which signal the beginning of the end.

With Romeo banished from Verona, and with her father planning her wedding to another man, Juliet desperately seeks the help of Sister Lawrence, who agrees to help her fake her death so that she can escape with Romeo. But in an unbearable twist he hears not of the plan but of her tragic death, and goes to see her body with a vial of deadly poison.

The ending was always going to be agonising, but I was horrified to see Juliet awake to witness Romeo take the poison. He realises that she lives, but it is too late – to her tormented cries he dies in her arms. Devastated, she takes her own life, and we are left wondering whether we should feel pained

that they could never be together, or find some solace that in their deaths they proved that love could surpass the cultural and social boundaries imposed upon them.

Leaving, we are asked: "What's in a name? that which we call a rose/By any other name would smell as sweet" and we are left wondering if we can really answer it, hoping that in our modern world love can overcome such obstacles.

\\ Ludovic des Cognets

culture. Telix

obots, the Science Museum's shiny newly-opened exhibition, is a real treasure trove of delights: featuring over 100 robots models it spans 500 years of humanity's quest to recreate itself in the form of a machine, a process historically shaped by religion, industrial innovation, and popular culture.

Among the star attractions is the UK-built RoboThespian, a full-size humanoid robot who also gave the official opening speech, receiving quite of a standing ovation from the press. He engages in vocal exercises, and gives a theatrical performance to visitors every 20 minutes.

The pieces are striking – from a 16th century automaton of a monk to a 244-year-old working model of a silver swan automaton created by inventor John Merlin - and must have dazzled in their day. Ben Russell, the exhibition's lead curator, points out that most people in the past would not have even seen a mechanised clock when they first clapped eyes on an automaton, so all this was surely mesmerising to the audiences of 1560.

In every stage of the 500-year story, robots have held a mirror to mankind. Whether the aim was bringing the Bible to life with a mechanized Christ on the cross, or the pursuit of leisure with clockwork animals and human figurines, model makers explored whether humans were anything more than merely conscious machines.

A few centuries later, in the enlightened 18th century, machines became more gleeful, with automatons of flute players and writers; in contrast, the next century brought a style that was totally unruly, with drunken aristocrats and dandies all being recreated as automata.

Despite the praise that these machines received, the rise of the mechanised economy made people acutely aware that automated spinning devices were quickly going to replace skilled craftsmen and women. As a memento of this historical moment, a replica of Maria, the female humanoid in the Fritz Lang's notorious 1927 film, Metropolis, stares at you while you approach the second exhibition room.

In the same space, the first tinplate toy robots for kids, that hit the shelves in the 1930s, are displayed together with a replica of the UK first robot Eric - presumed dismantled after his risky world tour, he was rebuilt by the Science Museum for the exhibition. Eric shares the visitors' attention jointly with his younger brother, George, and the giant Cygan, an Italian metal showman built in 1957 who shared a magazine cover with Brigitte Bardot.

The tin men resembled humans on the outside but they were still operated by cables and pulleys until the 1990s, when engineers began work on anthropomimetic robots with plastic skeletons and silicon tendons. Beside humanizing robot bodies, engineers have also focused on the computing leaps that allow modern robots to converse with people in a meaningful way, providing information and learning from them.

While you approach the last section of the exhibition dedicated to modern robots - passing beside RoboThespian, who recites Hamlet and speaks Klingon, Pepper designed to look after our elderly, and Kaspar, who helps autistic children – you soon realise that a mechanised army of robots is imminently going to fill people's private and public lives. This change will be just as radical as the development of the internet and social media in the past decade. But no human activity is risk free; the go home question as we look the future in its animatronic eyes is what we should fear most: artificial intelligence or human stupidity?

Maria, the infamous robot from Fritz Lang's Metropolis \\ Agnese Abrusci

Robots All hail our benevolent mechanical overlords



RoboThespian, who can quote Shakespeare at you \\ Agnese Abrusci



Agnese Abrusci

Robots is on at the Science Museum until 3rd September

Tickets are £6.75 adults; £5.85 students.



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Seeing Green

Remember the good old days, when we had the environment themed shows like Captain Planet? Well, if you miss that era, here are some shows that'll help you get your fill of green TV.

Zoo

Zoo is a bizarre little beast that works wonderfully as a TV show precisely because all of its individual elements do not. Based on, of all things, a James Paterson novel, this series chronicles a world thrown increasingly into turmoil as animals everywhere rebel and begin some sort of coordinated attack on humanity. In the midst of this, a ragtag bunch of scientists, reporters, and safari rangers band together in an attempt to sort it all out. Everything about Zoo tries desperately to take itself seriously despite itself. What results is an absurdist's wet dream.

\\ Claudio Gennari

Planet Earth II

The sequel to one of the most critically acclaimed nature documentaries of all time, this latest David Attenborough offering was 10 years in the making. This series excelled at highlighting the drama and tension in the seemingly mundane, with the first episode's lizard sequence rapidly achieving memetic status. Sampling stunning natural beauty from around the world on an unprecedented scale, the series is a must watch for any aficionados of the natural world.







Animals

Produced by Bob Saget of all people, this comedy show chronicles the lives of various animals that inhabit New York City. Featuring a rotating cast of comedians, episodes are largely improvised, with participants only being given an overview beforehand. Animals does not squander its premise, instead taking full advantage of the unique opportunities offered by the individual animals' characteristics. The HBO production credit draws in top comedians, and the show offers some excellent surreal humour.

\\ HBO

Spy in the Wild

A slightly unique spin on the classic nature documentary, Spy in the Wild hinges around a series of animatronic spy cameras. These faux-animals are used to infiltrate herds, and, in-theory, give a never before seen insight into the animals' group dynamics. The series recently made headlines for a sequence where monkeys are apparently so convinced of a camera's authenticity, they have a funeral for it when it breaks down. Plus, it's narrated by David Tennant; who could ever tire of that voice?



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To get yourself a three-course meal for £13, you might have to do away with tipping, and catch the best deals. But when the food is this good, it's all worth the effort at Percy and Founders in Fitzrovia.

Location, location, location

Whilst religiously completing my daily routine of procrastination, I happened to view my friend's, who seems to have a lot of money to spend on food, snapchat story. She always puts up gourmet looking pictures, but whenever I google the restaurants their prices are so student unfriendly. But when I googled Percy and Founders, a fancy gastropub in Fitzrovia, I found to my delight, that they have half price on all food on certain days! So I roped some friends of mine into trying some upmarket British gastronomy.

The food

Pooja and I split some oysters to begin with. They slid off their shells easily and were so fresh I didn't actually need any of the chilli oil, Tabasco or lemon they gave alongside it, as they were so flavourful by themselves. Pooja had never eaten oysters before, so she bit into them rather than swallowing them. I am told they don't taste as nice that way – but to each their own. My other friends let me try their pumpkin soup. It was creamy, multi-flavoured with sweet and spicy tones and was a decent portion.

For mains Pooja had her sea bream with vegetables, which she wiped clean off the plate because it was "really good" as she said. The rest of us got truffle risotto, which was hands down the best risotto I have ever tasted. The varying textures of crispy onions, soft wild mushrooms and tender rice worked well together. It was super yummy, and that was before I enhanced it further with some left over lemon from the oysters.

For dessert I got a massive chocolate fondant with a light minty vanilla ice cream that left you feeling really fresh. The fondant wasn't hot enough that it burnt my tongue, and the ice cream didn't give me a brain freeze, they were both exactly right temperatures. Pooja got a cheesecake, and said it was "really good" again. I need to work on her food descriptions. My other friend got a really big portion of apple crumble that tasted like a warm hug. Just like apple crumble should - so that went down a treat.

First Impressions

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The restaurant is extremely spacious and airy, with floor to ceiling windows, two bars and an open kitchen. It has a series of rooms which are cosily decorated like a dining room in a rich person's house. A waitress greeted two of my friends and I, then led us to a bar where another friend of ours was waiting for us whilst sophisticatedly sipping upon his tap water. We were seated and got down to deciding what to order.

There were a limited number of vegetarian options, which made it easy for both of my vegetarian friends to choose what they want. However, my friend Pooja and I have slightly more complicated dietary requirements. Pooja had been talking about how she was going to get the Sunday roast since we got onto the tube, unfortunately the waiter informed us it was beef, which she doesn't eat. She then asked for the lamb shank. The waiter took her order, disappeared to the kitchen, but shortly came back to inform us that lamb is cooked in beef gravy. We asked if a separate gravy could be made for her, which he enquired about. It couldn't. At least he was intelligent enough to check out the ingredients himself now that he knew her requirements. She finally settled for sea bream and I got a risotto, but not before the waiter separately went to check whether either were cooked in alcohol, as I don't drink and she doesn't like the taste of it. That took us about 20 minutes, because of all the back and forth.



As the waiter constantly refilled our tap waters and had patiently waited on us with a constant smile despite our numerous mind changes and complicated requests, we wanted to tip him, but didn't because the whole point of eating here was to get a deal. So we awkwardly refused to pay the optional service charge, but he still smiled and was accommodating! He was probably the best waiter I've ever had, which is what you get when you go to a fancy restaurant. We wrote him a note on the back of our receipt thanking him, so at least he knows we appreciated him, even if he wasn't



\\ We wrote him a note, so he knows we appreciated him, even if he didn't get a tip. I don't know if that makes it any better \\

getting a tip. I don't know if that makes it any better. Instead of mints at the exit, there was a bowl of matches,

there was a bowl of matches, I presume so you can light up your post-dinner cigar. There was a definite difference in the taste of the food here and that which you get at a normal chain restaurant. Everything had defined, delicious flavours, and the portion sizes meant that you were full, but not lethargically so. I got oysters, risotto, fondant, matches and really good service all for the total of around £13! Definitely worth the money.

Hit me up, homeslice

It really doesn't get much better than pizza, IMHO. However, given there are so many variants, it's sometimes hard to pick the best from the bad so we're here to help.

Alice Davage

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he hipster revolution is upon us. No food is safe. The humble burger has been embellished with a bright green avocado bun. If you haven't tried kale or quinoa (pronounced "keenwah", trust me, I have been corrected multiple times), frankly, where have you been? Although the occasional twists on traditional dishes are welcome, food fads are often the products of bored people with well-groomed beards and usually die out in a matter of months. Many try too hard to be alternative and lose sight of the practicalities of eating. "Deconstructed" spaghetti bolognese out of mason jars anyone? And let's face it, bread served in hats is simply unhygienic.

However, some food fads catch on and become mainstream. The earliest known variation of modern pizza originated in Naples. Since then this world-wide delicacy has adapted to a variety of taste buds, which has resulted in long running feuds over which type is best. In the USA alone the famous Chicago deep-dish is in competition with the New York-style thin slice. Across London the Franco Manca pizza chain, popular with Imperial students, is known for its delicious and surprisingly affordable sourdough pizzas. As the daughter of a baker who has grown up with the smell of

wafting through the house, these pizzas are a particular favourite of mine. In my own kitchen I have heard far too many arguments about pizza, you wouldn't think it could be a controversial topic, and yet whether a Hawaiian is a monstrosity or not is an ongoing debate. So naturally when it comes to pizza trends any deviations from the norm are essentially marmite – you're either going to love them or hate them.

homemade sourdough bread

A few months ago while aimlessly wandering around Soho with rumbling stomachs, a friend and I stumbled across a place called Flat Planet. Upon inspection we had found a hipster gem. But in a good way. Now this place is littered with hipster décor, featuring classic exposed Edison light bulbs, thoroughly doodled walls and a rather endearing piano named Tom with a "play me" sign. If Flat Planet was all style and no substance then it would have been a disappointment. But luckily the food was great too. Their speciality is flat breads if you didn't guess from the name. What struck me most was that the menu included some topping combinations that are different to the classic pizza choices. I found my Moroccan flatbread with houmous, labneh (a type of yogurt), tomatoes, olives, basil, mint and rose harissa to be a refreshing alternative to my usual pepperoni pizza. The flatbreads are also lighter than most pizzas, which make

them a perfect light-ish lunch. Pizzas that could definitely never be considered light are the 20" giants served at Homeslice. The use of paper plates and the fact that these wonderful creations barely fit on the table, meaning I was essentially eating off my lap, made for a more casual family-style eating experience, where ordering more if you're hungry is encouraged and perfectly feasible considering how quickly the pizzas arrive after ordering. But what if you don't all want the same , topping? Not a problem. There is the option to have half one type of pizza and a different one on the other half! Although this does make the pizzas incredibly artsy looking, a plus for any avid instagrammers and snapchatters out there, it essentially means that you have combined two regular sized ones into a more impractical 20". But hey, this is definitely more fun and a nice change for people looking for something out of the ordinary.

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The choice of toppings are great too. For once, vegetarians are not subjected to only

\\ Flat Planet is littered with hipster décor, featuring classic exposed Edison light bulbs, thoroughly doodled walls and a rather endearing piano named Tom with a "play me" sign \\

two choices, a boring margherita or vegetarian option that no matter where you order it from always seems to include the same 5 vegetables and overdoes it on the sweetcorn. There has been a gap in the market for more exciting vegetarian pizzas for a while and I believe Homeslice may be the answer. Some of the vegetarian options include innovative toppings such as cauliflower cheese, butternut pumpkin and broccoli, ingredients you wouldn't normally associate with pizza.

Homeslice also switch things up in another way. Their pizzas come with a range of sauce favours instead of just the classic tomato. This includes the rich red wine sauce lined base used with their venison and kale pizza. To put it simply, it was divine. Naturally drinking wine to accompany pizza tastes great, possibly a match made in heaven in fact, but who would think to put the alcohol on the pizza instead? For the people who aren't in love with the flavour of red wine, Homeslice also offer other interesting tomato sauce alternatives, such as sweetcorn purée and garlic.

The archetypal standard round pizza with cheese and tomato sauce is irreplaceable and will always hold a place in my heart. But sourdough, flatbread and unusually large pizzas are variations I can get on board with. Someone had to come up with a crazy spark of genius for all the foods we enjoy today to be invented in the first place. But equally if you chose to stick to Domino's, then fair enough, I won't judge (much).





The final environmental

overwhelming garment greed

western world hunts down a

sale as our ancestors chased

prey in the wilderness. High

items of clothing annually,

demand produces 150 billion

which globally equates to 20

new items per person every

year. Then, on average each

garment is worn only seven

times before being dumped

in a landfill. Worse still, in the

UK alone £37.5 billion worth

issue with fashion is the

driving consumption. The

Are we killing the planet in style | Sustainable Fashion

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When Marc Jacobs said that clothes mean nothing until someone lives in them, he probably wasn't thinking of all the clothes that end up in the Great Pacific garbage patch or the carbon emissions the industry is responsible for. Eloise Hunt talks about the need for sustainability and discusses ways to mitigate our passion for fashion.

t the thought of pollution, we imagine raw sewage pumped into rivers, opencaste mines and oil spills. We don't often think of our fluffy unicorn slippers or plaid shirts. But the overall impact the fashion industry has on our planet is shocking. The production of clothing has been estimated to account for 10% of total carbon impact. The fashion industry is arguably the second greatest

\\ The production of clothing has been estimated to account for 10% of total carbon impact \\

polluter in the world, second only to oil. Even ignoring the human rights abuses and animal suffering, the impact of our disposable dress is dire. People need to be taking fashion more seriously, not less.

The lack of sustainability in fashion can be blamed on four major factors. Firstly, there is enormous energy consumption associated with clothing. Production is concentrated in countries such as Bangladesh and China. Here, factories are powered by coal plants before garments are shipped to the rest of the world. It is difficult to find reliable data on how much fuel is guzzled transporting clothes. But, we do know that in the US only 2% of clothing is domestically produced and globally 90% of fabrics are transported by cargo ship. A single ship can produce as much atmospheric pollution as 50 million cars in just one year.

Another major factor is cheap synthetic fibres increasingly replacing natural cotton or wool. Polyester and nylon are both non-biodegradable, energy intensive, and made from petrochemicals. Polyester is rapidly increasing in value and is now in over half of all clothing. Nylon is absorbent and breathable, so perfect for making those super cute yoga pants. But nylon production forms nitrous oxide, a greenhouse gas 310 times stronger than carbon dioxide (not so cute). Viscose is another synthetic which is derived from wood pulp, and the material's popularity in fashion has caused deforestation in Brazil and Indonesia. This is significant as the rainforest is often described as the 'lungs of the earth' - acting as our most effective carbon sink and providing oxygen in return.

Even when stepping away from synthetics, cotton is hardly innocent. It is incredibly water intensive accounting for 2.6% of global water use. It takes 2,000 litres of water to produce the average cotton t-shirt. Further, 99.3% of cotton growth uses fertilizers, which can cause runoff and eutrophication of waterways. Uzbekistan, the sixth largest producer

\\ Even when stepping away from ssynthetics, cotton is hardly innocent \\

of cotton in the world, is the poster boy of cotton catastrophe. In the 1950s, two rivers were diverted from the Aral Sea as a source of irrigation for cotton production. As the sea dried up, it also became over-salinated and laden with pesticides and fertilizer from agricultural runoff. Contaminated dust from the bare, dry lake-bed saturated the air, creating a public health crisis and settling onto farmland. This also has the knock-down effect of making the regional climate more extreme with



colder winters and hotter summers. Currently, water levels in the Aral are less than 10% of what they were 50 years ago. Whilst this is a dramatic example of cotton farming, similar environmental mayhem can be seen globally. of clothing is hidden in our closets unused and unloved. Faced with issues of energy consumption, the rise of synthetics, water consumption, and fast fashion it's easy to feel powerless. But, with increased scrutiny comes sustainable solutions. Increasingly, high-end designers are turning eco fashion from hippy to haute with endorsements from celebrities, including Mark Ruffalo, Emma Watson and Stella McCartney. This is a small yet significant thread of hope.

But what can us mere students do when we don't have thousands to splurge on a tee? I'll spare you the lecture on conscious consumerism as it's clear that we need to loose our societal obsession with buying the latest catwalk trend and wear our clothes for longer. But, when you need new clothes, opting for Fair Trade or organic fabrics is a simple way to ease pesticide pollution and, in the case of cotton, reduce water consumption by 60%. If your heart still throbs for high street style, then look to the H&M Conscious line which uses sustainably sourced or recycled materials. Or, better yet choose second hand, vintage or upcycled items to save your pennies and the planet from the processing of more virgin fibres.

In celebration of Green Week, Environmental Society are holding a clothing and items swap at 13:00-16:00 in Metric on Wednesday the 22nd February – this is a perfect opportunity to rejuvenate your wardrobe with sustainable style. Above all, fashion is not yet sustainable but we, as consumers, hold enormous power to persuade brands to make products that are clean, of high-quality, and worth wearing.

Union Page

Friday 17 February



Stand in The Leadership Elections 2017

The Leadership Elections 2017 are your chance to shape the future of student life at Imperial. Every single Imperial student, no matter their subject, degree level, or campus, can cast their vote for the students that will lead the groups that make this student community what it is. Imperial College Union brings together Clubs, Societies & Projects, Constituent Unions, Liberation Officers, Academic Representatives, and Community Volunteers into one vibrant and active organisation. Some of the positions are full-time, which means you need to take a year out of your studies or be coming to the end of your course this academic year. Find out about all of the positions and stand now!

imperialcollegeunion.org/elections

Student Volunteering Week is back: Monday 20 February - Sunday 26 February!

The long awaited, college-wide anticipated, Student Volunteering Week is BACK! Monday 20 February – Sunday 26 February, Imperial College will engage in a community-wide celebration of the achievements and impact created by student volunteers. This year's theme of SVW is **Do Good**; **Feel Good!** Understanding that in serving others in our community, we are bringing forward better change for both the world and ourselves. To spread this message of kindness, the SVW team has organized a full range of volunteering events throughout the week to ensure EVERYONE has a chance to do good. Sign up and find out more!

imperialcollegeunion.org/svw

SACA nominations close 26 February



Who has been a great lecturer, or an amazing administrator, or a topnotch demonstrator? Has someone in College helped you through tough times, or gone the extra mile to explain a concept or support your research? If there's anyone who stands out to you, then let them know - by nominating them for a SACA. Every nominee will receive a SACAs mug - and the shortlistees will be invited to the glitzy SACAs Ceremony in May 2017. You can nominate as many people as you like, in as many categories as you like - and if your nominee is shortlisted, you might win a free ticket to the Ceremony!

imperialcollegeunion.org/sacas









Is porn hurting your brain?

Everyone, even your mum, watches porn. Would stopping make your life better?

ast night l masturbated. That's not particularly exciting in itself – a pretty standard Thursday night – but when I found myself alone in bed looking for some me-time, I automatically reached for my phone for some inspiration. Realising that I didn't know when I got in this habit, so I decided to put down the phone and just use my imagination. And it was hard (no pun intended, in fact, it was exactly the opposite)! Somehow, I've accidentally trained myself to get turned on immediately when I look at porn, and simultaneously managed to forget how to masturbate without it, which has the potential to be more than a little frustrating when paired with the unreliable battery in my aging iPhone.

\\ Not watching porn will make you less submissive to the Illuminati \\

I like porn (which may be obvious from the above statement), and I think that it has a place in anyone's sex life, if they want it to. Although porn sex is frequently unrealistic, once you're past early teenagerhood and have a more pragmatic view of what sex is and isn't like in reality, it can be a great way to explore different things, and find out what you do and don't like. And it can just be really fucking hot, which is always good in a source of visual entertainment.

\\ Brainwashing yourself into enjoying anything exclusively sounds like a risky manoeuvre \\

But is it bad for you? There's a lot of crackpot shit on the internet about how stopping watching porn will make you taller, less angry, have clearer skin, and somehow will make you less submissive to the Illuminati. It's also cited as giving you "destructive erections", better dream recollection, and an urge to expand your mind. However, no reliable source was given, and so we're choosing to ignore these #AlternativeFacts.

Keeping it real though, let's be grown up enough to admit that we all use porn, at least occasionally, and that's perfectly okay. I think we're all on the same page that masturbating is healthy, but it's easy to get stuck in a rut. In the same way that years of intense wanking can make it difficult to enjoy handjobs from a friend, consistently using porn to feed your fantasies makes it harder for your brain to go it alone. Porn makes it easy to rapidly alleviate the physical sexual frustration, and who wants to make time for pleasuring themselves in their busy life? But does this seem healthy? We're limiting our abilities to use our imagination, and training ourselves only to respond to certain stimuli. As well as restricting the way we get ourselves off, this can translate into problems in your wider sex life.

There's a growing movement against any use of porn for masturbation, and I don't just mean amongst the creepy pick-up artistry toting neckbeards occupying the NoFap forums on reddit. I don't know if that's completely necessary, but I think it is important to be aware of how your thought processes can be affected by what you're choosing to wank to. In the same way that masturbatory reconditioning is a disturbing technique used to 'cure' homosexual tendencies and 'retrain' 'correct' desires, the same principle applies when you consistently masturbate to certain imagery. In a classic Pavlovian way, you become conditioned to become turned on only by porn - a learned behaviour that can manifest as discernible neurological changes.

Porn sex can frequently be violent and problematic, and teaching yourself only to be aroused by this imagery could lead to some questionable behaviours down the line in



Brainwashing yourself into enjoying any one thing exclusively sounds like a risky manoeuvre in any case, and one that's best avoided. This

\\ Porn makes it easy to rapidly alleviate the physical sexual frustration, and who wants to make time for pleasuring themselves in their busy lifestyle?\\

can mean curating your porn habit by varying the content, and maybe sometimes making that content come straight from your mind. It's like those brain training games, only a little more fun! You're definitely going to get a first if even your wanking time is being used to develop your cognitive abilities.

I don't think that we need to break the porn habit entirely, but maybe occasionally try and do something different: try a new butt plug, hang upside down from the ceiling, but most importantly, use your imagination.



elix millennials



SEX DRUGS? Love is the drug you can't get enough of

et's be real. Love is a drug. It inhibits our ability to think clearly, turns us into terrible people, and makes us do stupid things. Face it, it's far more harmful than a few hours gurning at the weekend. But just like with drugs, there are different kinds of highs, and

so now, in honour of the just-passed Valentine's Day, I present you the different people you have fallen in love with, and the associated stupid things they will make you do.

You'll love all of these people, in different ways, but they're nothing compared to your one true love: you.

The first relationship

This is your first proper relationship, probably in sixth form, or with someone from your halls when you're a fresher. You'll think you're so grown up, when you're turning down nights out to stay in with bae, watch X Factor, and cuddle. You'll probably gain a lot of weight because of this (not that that's a bad thing, but there are much more fun ways to get fat than to stay in every night eating pizza), and you'll post how much you love each other all over facebook, both of which you'll regret when you inevitably break up just before the summer holidays, bore everyone with your moping for six weeks, and then realise that no one really wants that life at your age anyway.

The love at first sight

This is the one you'll meet one Sports Night at Metric. You'll see them across the bar, and your eyes will meet. You'll start talking to them. Why have you never met before? You have everything in common! This connection must be made to last. You start planning your future together; they'll get on so well with your friends. You'll make your famous Shepherd's Pie to impress their housemates, and you're already starting to put together a parent-safe anecdote to explain how you met. But then you go to the toilet and when you come back they're making out with your friend. Your friends are always so shit. You should get better friends. You go over to your friend and throw your drink over them. Now that was stupid, wasn't it?



The first love

This is the one you have a crush on all the way through secondary school. You'll insist that it is real love, that no one else could ever possibly understand them. Although they don't know it yet, you are the one. Unfortunately, for the time being, they will inevitably have a long-term crush on your best friend. The stupidity of youth will have you writing their name all over stuff. Even if it's just your diary where no one else can see it, that's not really private, because it's going to come back to haunt you when your parents move house, pack up your room, and unearth the diaries hidden under your bed.

The one you idolised

This is the one whose attention you can't believe you're receiving. They're the beautiful Italian in your tutorial, the one who sashays in looking effortlessly beautiful and glamorous. You don't know why they're suddenly interested in you, but they are. Unfortunately, it will make you cripplingly insecure. Why are they talking to the others? Are they going to leave you for them?! You'll become paranoid, and eventually break up with them dramatically before they can dump you. You'll get over it pretty quickly, and will always show people their facebook profile at parties to brag about this hottie you once scored. You'll never know that you broke their heart. They could have been the one.

The one you thought was the one

You'll think you know everything when you fall in love with this one. You've been around the relationship block, you know the difference between stupid teenage love and the real love you're feeling now. They're the one who'll be in your family photos at graduation, the one you turn down that amazing consulting job in New York for, because you can't imagine a life without them. You'll make sacrifices and change your life plans for them. If you're unlucky, you'll get engaged.

When you break up it'll be unexpected, and you'll start to relate to VICE articles and think you're interesting enough to start doing drugs and going to orgies. You're probably not, but you probably are better off now. No one wants the same things after they leave Imperial.







Drug Bible | Modafinil 101



Glossary

Modding – The act of being on modafinil Daffodils – Pills of Modafinil Hey Bradley, you got any Apple Pie? – When you ask your friend Bradley for modafinil

You got Mo' Da Finil – When you're desperate for modafinil Stimmed Out – When you're stimulated. By Modafinil Crashing the car – When you're on Modafinil and you're driving your mom's car and a Britney Spears song comes on and you get really distracted and you crash your mom's car

modafinil

¥ f >

The act of sticking a single or multiple baby carrots into an asshole.

Person 1: FUCKIII! Person 2: WHAT?!? Person 1: My mom just modafiniled me!! Person 2: FUCKI My mom did that to me last week!

by OrganicSlut March 09, 2016



Yeah, we don't know either. \\ Urban Dictionary

Some statistics

In 2014, a study by The Tab asked 2000 students from 41 different universities about their experience of study drugs. It found that one in five had taken modafinil, so clearly there is a potential market here. I am unsure whether that figure would be higher or lower at Imperial. On the one hand, Imperial students are unwavering in their attempt to gain academic success. But on the other hand, students here have been found to be much more averse to drugs than their counterparts at various other institutions.

Things to do when you're high

Do

- Take early in the day to get the full effect
- Make sure you're in an environment ready to study (no distractions)
 Stay well hydrated and
- fed

Don't

- Take expecting the effects of ecstasy
- Tell your mates how hard you are because you're taking drugs (you're taking modafinil you prick)
- Take after 6pm, then it's pretty much guaranteed you won't get any sleep that night.

Imperial College has a strict zero tolerance policy on drugs. If you're struggling with drug use, visit talktofrank.com

What it does

Modafinil is used to increase the alertness of the user. Whilst it is normally used to treat narcolepsy and other sleep disorders, it is also commonly used as a study drug. Once taken, expect to feel more awake and typically less prone to frustration, allowing you to become more productive in the work you do. However, with all this new-found alertness it is not uncommon to begin to direct your focus toward less productive endeavours. Expect to be distracted more easily than normal.

How you use it

The vast majority of study drugs come in the form of a convenient pill. Unlike the various brightly coloured pills that ecstasy may come in, modafinil looks like boring plain old paracetamol. Modafinil itself claims to keep you at peak alertness for around 10 hours, with additional stimulation lasting for a few hours after that. However, due to the longer lasting nature of these pills when compared to traditional drugs expect more variation in duration between people. For instance, having known people who have taken the drug, I have received reports that the effects can last anywhere between four and twelve hours depending on the individual. After taking, keep yourself hydrated, it's important to maintain a healthy amount of water in your system should your body reject the drug and attempt to flush it out. As stupid as it sounds, it is also important to remember to eat. Expect to feel a diminishing appetite for at least the first few hours after ingestion.

Legality

As of the time of writing, in the UK, to possess modafinil is legal. However, it is only legal to buy if you have a prescription. Providing you have a prescription, it is obtainable from your local chemist or pharmacy. It is also available from many international websites that stick two fingers up to drug restriction laws in the UK, therefore this stuff is actually obtainable. It should be noted that any attempt to import large amounts of substances such as modafinil will only be considered by the authorities if it is for 'personal use'. Typically personal use constitutes no more than a ninety day supply.

It is important to be aware about the dangers of ordering drugs from an international company based in some shady corner of the world. Do not expect everything you order to be 100% every time.



Oil is literally the devil (except Jojoba oil – I love Jojoba oil)

ENNIAL

S

Jian Li Chew will have no part in this oil fueled genocide.

I want to run a bath of crude oil – the planet will be fine

Lian Chi Jew can't get enough of dat oil



o here we stand at the precipice of world doom. Having survived countless wars, merciless slaughter and wanton

brutality, we decided to boil ourselves alive. All this is thanks to Big Oil, which is thanks to Big Corporate and Big Government, which is thanks to the Illuminati Freemason Zionist New World Order created by Lizard-Men to control us.

This is the time for the revolution to occur. We must fight back against the corporate machines that enslaves us and free ourselves from their clutches. Oil is the biggest evil of the world. We must stop using oil in any form. No more cars, no more buses, no more electricity, nothing! No more cooking oil either. That stuff is unhealthy.

\\ We will rage against the machine, rage against the dying light. Luddite, Luddite, Luddite! \\

You know what, even renewable energy should not be used since wind turbines are ugly and affect birds. Also nuclear power is scary. You can tell me all the facts about all the safeguards built into the reactor and how it is the only available easily scaled up power source that emits little greenhouse gases, but then, I don't care about facts, only about how I feel about things.

We must realise that all technology was invented to further marginalise the common people. The creative destruction of millions of jobs was no accident, but part of the Lizard plan to make us more and more unnecessary until the time comes to exterminate us. We will rage against the machine, rage against the dying light. Luddite, Luddite, Luddite!

We shall return to the good old days, living off the land and using beasts of burden. We will no longer be chained to the concrete jungle. We will live in perfect harmony with nature. Granted without modern technology our entire civilisation will fall apart and billions will die, but for those of us who remain, we shall live in paradise. Will you join me?

hat liberal hippie sucktard, what's he talking about? This is the best time to be alive! Oil is beautiful, coal is beautiful, gas is beautiful (except the fart you produce you skunk). We must keep burning more, in fact, we don't burn enough fossil fuels. Why should we waste our time with all these useless renewable energy projects? Screw the sun and wind. Oil is the most efficient way to power our economy. It's gonna boom!

\\ Oil is beautiful, coal is beautiful, gas is beautiful (except the fart you produce you skunk). We must keep burning more, in fact, we don't burn enough fossil fuels \\

All this climate change hocus pocus by dumb stupid scientists is a huge hoax to get tons of funding. Oil executives in fancy suits say that climate change isn't real, and they have no reason to lie. It snowed for like fifteen minutes last Friday, so all that climate rubbish is disproven. I also think that the decline of the coal industry is awful. Bring back coal! Bring back all the lost jobs! That black smoke carries the sweet smell of progress. But what about the health effects? Just wear a mask. Also, enduring pollution

is manly.

Scrap the Paris Agreement. It's a stupid thing and will make manufacturing less competitive and expensive. Also the French are rude and smell of cheese. Unbridled capitalism is the engine of prosperity (for some of us. The rest, not so much) and this agreement was created by dirty socialists who are jealous of our success.

Now you ask me, but what happens when we run out of fossil fuels? Pfft, that's like, 50 years into the future. Not my problem. By the time we run out of fuel we'll have discovered a way to go to the Moon or something. Short term greed over long term planning? Hell yeah!







The other night I had a revelation. I was in Metric (classic) enjoying the lift of the contactless limit (dangerous) and, well, I met someone. Our eyes locked and let's just say there were sparks. Though someone did actually spill their drink on one of the new tills and there might have been a small fire, I'm telling you that first look was electrifying.

Anyway we naturally got to know each other really well over the course of the evening (we had sex) and well I now have penis envy. Like wow foreskins are so fun! I hadn't seen one before, let alone touched one!

So basically I want a foreskin. I feel like if I don't get a foreskin I will never be able to have a fulfilling wank ever again. What do I do?

Yours,

C. T. Willy

Oh Willy

I'm glad your time in Metric was so spiritually fulfilling. It is true: The Union bars are charged with spiritual energy and repeatedly partying in one of the venues is a full-proof path to Nirvana.

Like one time After having maybe six vodka-redbulls within the space of an hour I started feeling my hair. And then I started feeling the hair of everyone in Metric. And then I just felt so connected to everyone in the room because we're all mammals and have hair (unless you have alopecia but I'm sure you're lovely).

This other time I started seeing water coming down from the ceiling and filling up the light fixtures and I wasn't sure if I was ascending or just back in my room in Alban Hall.

I really need to stop minesweeping. And move out of Alban Hall.

But I digress; Foreskins are great. There's just more penis to play with and last time I checked that's a good thing. Unless you're not into penis. Then it's categorically a bad thing. Also they're great storage. You can use them like a man-purse and keep loose change in them. Or throat pastilles.

So yeah. Totally get one

Big luv, Chris xxxx

HOROSCOPES

IBR



This week you decide to go green and try watching locally sourced porn. Things get weird. Fast.

This week you just

wish you were back in

the womb. Beyonce's

womb. You want

Beyonce to be your

mommy.



This week you realise that your room in Alban Hall is the perfect environment for blue cheese making and launch a fromagerie startup from your bedroom. Green on the walls, green in the wallet.



This week you try dabbling in Satanism. You accidentally end up in a satin-enthusiast swingers party. You're now more convinced than ever that satin and Satan are connected.



This week you turn 25. You're officially way too old for Imperial. Just leave already.



This week someone gets the last jacket potato in the library cafe and you have a nervous breakdown.



This week you fall down some stairs and sue College. The stairs sue you back for libel. They win.



This week the felix office gets leftover balloons. Everyone gets dizzy and lightheaded trying to inflate them. Balloons. Not even once





This week you get adventurous with your Domino's order and stay off the Margherita path. The first slice you pick up has an eyeball on it. Illuminatil



APRICORN

This week you try protesting fossil fuels. You try writing a politically charged slogan on Queen's Tower. Your inner child though makes you draw a penis instead. You tried. It was hard.



This week you infiltrate the No-Fap reddit community and pretend to be a man who doesn't masturbate for a week. You now have a third arm and your breath smells of man. Wait what?



This week you don't get a horoscope.

Telix SPOR



It ain't easy being green

ave you ever said to yourself "I love basketball, football and rugby with a

passion but it would be a dream to play them all at once"? Well then I have just the thing for you. A sport for those who fancy carrying the ball like rugby, but prefer a rounder shape. For those who fancy bouncing it every now and again, but also want the luxury of booting it into the net. A sport played with enormous teams but on suitably large pitches. I give you, Gaelic football.

It's a sport many have heard of but very few play. As the name suggests, it's huge in Ireland and is slowly starting to leak onto our television screens if you're lucky enough to have premium channels. It incorporates numerous elements from a number of different sports, fulfilling my promise above. 15 men take to pitches larger than that of rugby with two goals at either end. These aren't any ordinary nets, but hybrid football-rugby structures through which points can be scored

element. Players can carry the ball in a similar fashion to rugby, but must either bounce or 'solo' it (kicking off the foot back into the hands) every four steps. You must advance down the pitch, with very little contact available to defenders other than intercepting or one-hand tackling, after which attackers can make an attempt on goal either through the posts (one point) or into the net (three points). Simple right? Well, yeah it is

by passing the ball into either

actually. I mean no insult to those who play, as with any sport there are complex tactics and strategies involved, but this is mostly due to the lack of tackling opportunities and ease of movement over such a large area. But this statement isn't made naively, I went to a session in Hyde Park on a wet Wednesday to try out this classic Irish sport. Spoiler: I may well be going again.

After a brief but tiring warm up (I really need to get fit if I'm going to continue these give-it-a-go sessions) we're straight into some practice drills. There are only a few players at the session, but





there's enough team spirit and banter for three times the numbers present. I'm keen to add, and would be remiss not to mention, that it was a mixed session with no segregation at all. Admittedly only one female was present, but she was given no special treatment and rightly so. I digress. The drills are non-stop and comprehensive, with clear aims and transferable skills. I am instantly impressed with their ability to run sessions with very little equipment and space; even those with little experience in the sport can enjoy a good fitness regime and improved dexterity which I'm sure you'll agree are pivotal in most ball games. Those who regularly play football or rugby would benefit from such a sport. Not that I'm suggesting you moonlight with Gaelic football but, you know, you could.

We practice pass and move, team communication and sprint exercises. This is followed by defender pursuits, where you learn how to navigate the limited tackling allowances within the game. Here I can boast some success, as I surprised the chap running the session by twisting and turning the defender into a whirlwind of confusion. There might be some embellishment here but hey, I excel at few sports so I'll take the win. It was soon overturned

when the roles were reversed, as I let the defender get away without even catching up to him. Kind reprise or sluggish running? You decide.

We soon move onto half-pitch practice runs. Split into defenders and attackers, those running at the goal practice manoeuvres designed to draw the backs out creating space for a well-aimed punt between the rugby-style posts or ideally, a drill into the net. Once again,

\\ I hear whispers of "Wow" around me, but I'm sure it was just the wind \\

I'm given the opportunity to see if any Irish blood runs through my veins. Placed in the forward position, I move with ballet-like grace around the defenders. Ducking and diving around the quagmire we've lovingly called the goal-mouth, I find some space and the ball in my hand. I turn towards the goal, set myself up and blast it into the bottom corner. I hear whispers of "Wow" around me, but I'm sure it was just the wind. I'm absolutely loving this; I get to relive past memories of football which have slipped away from me and learn a

new game. It's a sport with benefits for those who desire to improve their fitness whilst enjoying great team spirit. You learn important off-theball skills, like losing your marker and creating space on what can become a very crowded pitch. Whilst chatting with the other players, I'm told other universities invite other sports teams to joint their practice sessions. Rugby players would benefit from improved ball-carrying and footwork, footballers would improve their shots on goal under pressure and basketballers will... bounce more.

Anyway, here's a sport that encompasses multiple skills and has a rich history within the British Isles. The number of people who turned up to this session wouldn't constitute a full Gaelic team, a travesty considering there are few match commitments due to a lack of teams around the country. The benefits far outweigh the time commitments, and all the skills you learn are transferable to a variety of scenarios. I've said it before and I wholeheartedly mean it again, go along and give this a go. Amateurs have nothing to worry about, seasoned sports players have nothing to lose.

ORT

Telix



IC Dance slays at Southern Universities

ancing is a sport? Of course! After months of intense training, IC Dance's Ballroom and Latin Dancesport teams travelled to Cardiff last weekend for a clash of the southern universities. This is one of the most eagerly anticipated competitions of the year, a crucial step before the UKwide competition in Blackpool at the end of February. Vying with universities as far as Exeter and Southampton (as well as the powerhouses Cambridge and Oxford), Imperial made an extremely strong showing, with dancers at all levels giving top-notch performances.

Dancesport competition operates on a unique knockout system. Couples are categorised by ability and from then on it is a battle to remain on the floor – a panel of judges ruthlessly eliminates around half the competitors during each round. Stamina is therefore crucial. With each round it becomes harder to maintain the same energy and sharpness, and yet the pressure mounts as fewer and fewer dancers remain.

For the IC Beginners team,



Of the more advanced couples, many were competing together for the first time last weekend. IC Dance lost several dancers to injuries and other commitments after Nottingham Varsity in November, forcing a reshuffle of dancers on the team. Undeterred by the limited time they had to practice, the newly-minted couples did remarkably well on the floor. Devon Anthony and Stephanie Rathmann came in fourth in Novice Ballroom despite being partners for little more than a month. Meanwhile, Barnaby Paul and Anastassia Rajapu





deserve a special mention for making it to the semifinals of Novice Latin with what must be the record for the shortest preparation time ever – their routines were made up on the day itself!

First and third places in Novice Latin were claimed by Imperial couples: Oliver Jiang and Mariya Pozdeyeva were the undisputed champions, with an unanimous top rank from every judge on the panel – an event almost unprecedented in the often hotly contested finals. Junyi Hou and Sarah McMullan were neck and neck with a couple from Exeter but were narrowly edged out for a commendable third.

At the Intermediate level, Devon Anthony and his Latin partner Freya Thomas seized their first competition win at SUDC last weekend with their skill in cha, jive and paso doble. They are a well-established partnership; both started dancing as beginners in IC Dance two years ago and placed sixth in Novice Latin at Inter-Varsity after partnering up last year. Since then they have gone from strength to strength.

Contrasting them in Intermediate Ballroom were Sirawit Ittisoponpisan and Yue Shi, who have only been dancing together since December. They faced off against five couples from Cambridge (and one Bristolian couple) in the finals to come in fifth place in waltz, Viennese waltz and quickstep.

In Advanced Latin, Tianci Ma & Adela Capilnasiu nabbed yet another first place for Imperial, triumphing over eleven other couples with their excellent performance in four dances: cha, rumba, paso doble and jive. Slavina Georgieva, an Imperial alumna, and her partner

\\ Imperial's A team came in fourth out of 33 teams representing universities at SUDC \\

Henry Hesten also made fifth place in the gruelling Advanced Latin (Ex-students) category, which assesses couples' prowess in all five Latin dances – the aforementioned 4 and an additional dance, samba.

As testament to IC Dance's versatility (and stamina!), Henry Hesten and his ballroom partner Sarah McMullan also competed in Acrobatic Rock N' Roll, coming in sixth with their effortless stunts and energetic dancing.

Finally, the day concluded with the team match: each participating university sends several teams of four couples, who dance separately in waltz, quickstep, cha and jive. They are judged together and progress through the rounds as though they are a single couple. Unlike the previous events where individual couples compete against each other, the team match is where universities go head to head on the dance floor. After four intense rounds of dancing, Imperial's A team came in fourth out of 33 teams representing universities at SUDC. Well done to the dancers of the A team!

The whole IC Dance team can be proud of their achievements at SUDC this year. Meanwhile anticipation is building for the Inter-Varsity Dance Competition, when the Northern and Southern universities will convene for the largest competition of the year! Best wishes to IC Dance as they gear up for IVDC next weekend. 

Because playing hockey on land is so last year

have two minor claims to fame: my brother featured in a Gocompare advert alongside Stuart Pearce and I learnt to swim in the same pool as Anthony Head's children. Pretty impressive right? No, I know, but it means I have always seen swimming as an epic, almost vampire-slaying-esque activity. And I've never really been any good at it. So when I was handed the opportunity to try a sport l've never played, hockey, and take it to the pool, I was apprehensive.

Underwater hockey, or Octopush, does exactly what it says on the tin. Hockey, with sticks and all, played in your local lido. Two teams of six aim to push a weighted puck into the opponent's goal (the construction of which resembled the underwater equivalent of sticking jumpers down as goal posts). The sticks are essentially shortened versions of their land cousins. Breathing, which I learnt rather quickly involves drinking half the pool, is tricky: requiring a technique by which you dive down with a deep breath and surface with a tip of the head and an almighty cough to empty out the snorkel tube. Being a strong swimmer helps, but it's also an advantage to have a good element of flexibility.

\\ Hockey, with sticks and all, played in your local lido \\

Something I struggle with seeing as I can't even touch my toes.

Sessions at Imperial take place at the Ethos pool, shared with the University scuba diving club under the umbrella of the underwater group. This helped when taking pictures of yours truly to highlight my budding mer-man impersonation. Kit was provided in the form of flippers and a snorkel. Once again, Imperial clubs are providing free equipment for those unable to purchase kit themselves. Underwater hockey is no exception, giving me a range of sizes to ensure I could compete comfortably. Once in the water, I'm given clear and concise instructions as to how to breathe properly. Having tried it and resembled a fish out of have designed exercises which aptly address this most basic of skills. It shows the sign of a good team when they start with the basics, even for those who are a dab hand. There are a few newbies in the session with me, and they are treated with great care as expected in a sport which is potentially dangerous for weaker swimmers. However, let's not try and sugar coat it here, I between team mates. The knack is to wait for the person two turns in front before diving down, ready to receive the puck. This technique is pivotal during a game: dive too soon and you'll run out of air, too late and your opponent swims under you like a scene taken straight from Jaws. The scuba team kindly took some snaps of me trying this: typically, they only caught my poorer attempts otherwise



water, we move onto some simple breathing drills along the length of the pool. We would swim a section of the pool along the floor then the remainder along the surface. This helped train newcomers on the different positions required when playing. It was explained to me that players usually float near the surface when not in play, then quickly dive down in order to get involved.

As you can see, the club

wasn't exactly flying up and down the pool. More like confidently diving down a few centimetres due to an increased... let's say buoyancy... around the midriff. But I certainly tried and it has definitely convinced me to spend more time in my speedos, much to my wife's dismay.

Next up, puck exercises. We split into two teams and form circles. This is a 'simple' task where you push the puck I would like to say that my ability to puck-push closely resembled that of a graceful mermaid, but only to the extent that it was completely fictional. Fortunately, the members were very supportive, giving me hints and tips on how to improve. Similar to many clubs I've visited, everyone is very welcoming and driven to improve your ability and not just their own.

As I had to leave early, we were put straight into a mini

\\ I would like to say my ability to puck-push closely resembled that of a graceful mermaid, but only to the extent that it was completely fictional \\

game. Now, normally by this point in a session I've got the basics down and can join in as much as possible. Unfortunately, I wasn't just trying to find my feet but also my lungs, so to say I was playing would be generous. I did, however, get a good idea of how the sport is played and the manoeuvres required in order to be triumphant. Players start at either end of the pool and rush to the puck which has been placed in the centre, similarly to dodgeball. You nominate someone to rush forward and the rest swim towards the other team. What follows closely resembles a controlled piranha feast, with less blood and more stick swiping. Players will attempt to move the puck through the pool but passing before your lungs scream for air. A culmination of strong swimming technique and puck control is essential, but it's not a sport to be avoided purely due to poor ability. Similar to many of the more unusual sports it's severely under-represented, but provides an opportunity to be a stronger swimmer and team player. I urge you to at least go online and watch some being played, then subsequently attend training on Thursday nights as you will like what you see.

The only downside I can think of is that I couldn't wear my usual Birmingham City shirt.





Imperial rugby down RUM(s)

till buzzing after their triumph last week, Imperial were roaring to get at a UCL Medical School (RUMS) side which had evaded defeat in the past five meetings, including a 49-10 drubbing earlier this season. With RUMS 2nd top and IC 2nd from bottom in our league, the scene was set for a tough afternoon.

Returning absentees, including skipper Joe McGrail, gave the home side a steely edge as Imperial looked to put their foot down early. A series of hard carries (particularly from Moorby and CPS in the centres) took IC deep into RUMS territory, and when the visitors infringed trying to stem the tide, Price Smith stepped up and continued his unusual recent trend of converting penalties, to give Imperial the lead. Not satisfied with this, IC came hard at RUMS again. A dazzling run, with some spellbinding footwork, from stage one Billy, got RUMS back peddling again. Field moved the ball quickly out wide to Zaboronksy, who drove over the line to score, with CPS adding the extras.

RUMS finally started to get a bit of a foothold in the game. A few of their big forwards worked out that it was possible to make yards, if only they don't run at DNS. Their number eight instead ran at Clayton and put an end to what had been a busy 20 minutes from the flanker, by pretty much knocking him out and leaving a sizeable egg on his head (not yet known if either the egg or the dazed Clayton has been re-poached). Thankfully Curtis was on hand to slot in, but the disruption suited RUMS who got back into the game. Firstly with a neatly taken drop goal, then a converted try, with nice footwork taking their big second row past some tired looking defence to leave the half time score at 10-10.

IC came out guns blazing after the break, their set piece dominance giving them a great platform to build off. In his 14th carry of 2017, Matt Blackett chalked up his first metre made which happily got him over the line. Zaboronsky added his second try, utilising a powerful fend



and burst of pace, following excellent work from subs Will Carter and Curtis. Carter got involved again with a second lung-bursting break up the middle. The offload didn't quite go to hand, but instead fell to Miller, who for once was working hard in support. Some good footwork from the prop controlled the ball and got him over the line, to seal a 29-13 bonus point victory for Imperial. Special mention goes to the subs bench, who came on and bolstered a tiring team and steered the ship home.

David Nielson-Scott

Cambridge humiliated by Immortals

t has been only two weeks since the Immortals fell victim to the Cambridge Pythons. With a lapse of concentration (from a heavily fatigued Defence) the score was 6-0 for Pythons when the bell did toll. The loss was particularly painful due to the honest fact we are the better team, and on that day it was insufficient preparation that ultimately let us down.

The day began cold, made all the worse when Markus 'Where's your bus?' Mohr found out the minibus we had booked was missing. Despite this, we got to the fortress of Harlington ready to defend it against the then undefeated Pythons. We too are undefeated but only at home; needless to say, both team had streaks we wanted to keep. Immortals started strong and maintained momentum for the whole game. Our star quarterback, linebacker, kicker and punter Jason 'Captain America' Patrick Kuilan scored four touchdowns on offence, and flew around making massive hits on defence. All his plays earned him the title of overall MVP for the day, although his full value is impossible to express in words or awards alone. As well as scoring on offence we also scored on defence when Henners 'one



of everything' Turner (Line MVP) slithered through the Pythons O-line, knocking over their Quarterback onto his lard-ass, and recovering the ball in the endzone for a touchdown. His blocking on offence allowed for the devastating ground game to have full effect. Nigvi 'Beast-mode' Tam was awarded Offensive MVP, for his consistent plays, great blocks and elusive 'like a mouse' style of running. The touchdowns were often followed by Jorge 'HHHhhhhhimmortals' Ales (Rookie Offensive MVP) firing into the end zone to secure the two point conversions. On defence we were as consistent as always. With the injured Frankenstein looking 'Shlidzilla' Guillaume Fontan battling though to stop any

\\ Knocking over their Quarterback onto his lard-ass, and recovering the ball ... for a touchdown \\

advances from the Pythons. Shout-out to my main-man-triple-OG-Mc Daim 'Smooth as the chocolate' Tariq, for curbing the snakes and ensuring the shutout. He was awarded Rookie Defensive MVP.

A total of five touchdowns were scored on Cambridge with four successful conversions. The final score was a massive 46-0. Embarrassing, that is what you get when you try and desecrate Immortal ground #OurRunway.

Your Union events

Coming up in our bars



Super Quiz Every Tuesday 20:00-22:00

Cocktail Night Every Tuesday 18:00-23:00

CSPWednesday Every Wednesday 19:00-01:00

Good Form Tonight 20:00-02:00

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iPop VK Neon Party Next Friday 20:00-02:00

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Pub Quiz Every 2nd & 4th Thursday 19:00-21:00

PGI Friday Every Friday 19:00-00:00

> Find us on Facebook fb.com/hbarpub



Quiz Night Every Monday 18:00-23:00

Board Games & Film Night Every Tuesday 18:00-23:00

Sports Night Every Wednesday 18:00 onwards

Pizza Night Every Thursday 18:00-2:00

Battle of the Bands | Heat 1 New date: Thursday 2 March 19:30 onwards



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Quiz Night Every Thursday 19:30-22:00

Sunday Roasts Every Sunday All day

Find us on Facebook fb.com/thefoundryw3

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An event that's hotter than the library.

This year for Meet the Candidates, we're doing things a little differently, so what's new?

- We're putting our candidates on stage in front of a live audience, as well as streaming it all across the internet
- We're asking tougher questions
- We're changing the way the panel judge our candidates

What does that mean? It's a brand new setup. More exciting, more tension, and more drama.

Meet the Candidates is your chance to see who your candidates are, and what they stand for.

We'll be putting them on the spot, grilling them, and dissecting their policies. Our teams from ICRadio and ICTV will be on hand to get your questions and ask their own.

We've got limited spaces available on the night, so sign up now via our website. If you're in a campaign team, then this event is absolutely essential. It's not to be missed.

Meet the Candidates 2017

01.03.17 | The stakes have been raised









Across

- 1. Aid (10)
- 7. Mariners (7)
- 8. Suburban house (4)
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- 17. Emphasised (8)
- 18. South American country
- (4) 21. Grassed area (4) 22. Copy (7)
- 23. Constantly (3,3,4)



- 1. Proposition assumed to be self- evident (5)
- 2. Blackthorn fruit (4)
- 3. Female relative (6)
- 4. German shepherd dog (8)
- 5. Order (7)
 - 6. Cut off socially (9)
 - 9. Laboratory glassware (4,5)
- 12. Cradle (8)
 - 14. Letters sent by plane (3,4)
 - 16. City of canals (6)
 - 19. Rub out (5)
 - 20. Flightless New Zealand bird (4)



Nonogram. The numbers show, in order, the length of blocks to be filled along that row/column. Each block must be separated by at least one empty cell.



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Send in your solutions to fsudoku@imperial.ac.uk before midday Wednesday to get your score added to our leaderboard. Make sure you include the name/team name that you'd like us to use!

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