First published in 1949, Felix is released weekly during term time and is distributed around Imperial's London campuses. All students, staff, and alumni are welcome to contribute to the paper.



Attenborough visits Imperial



Sir David Attenborough talks to Dr Muscutt for his new documentary, with Flip the robot plesiosaur behind them. Jo Mieszkowski for Imperial College London

Sir David Attenborough visited Imperial last month to film Dr Luke Muscutt's robot plesiosaur, Flip.

Editor-in-Chief JAMIE JOHN

egendary documentary maker Sir David Attenborough paid a visit to Imperial's South Kensington campus in December, to film for his new programme, Attenborough and the Giant Sea Monster.

Released on New Year's Day, the documentary follows Attenborough as he investigates the discovery of a giant skull in the cliffs of Dorset. The skull is revealed to belong to a pliosaur, a > READ MORE ON 4

New legislation to target spiking



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The fault in our stars

The perennial problem of rating books, and how stars aren't quite so cut out for it.

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PUZZLES





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DECLARATION

At *Felix*, we believe that it is always in the interest of the students to be in the know. Transparency in the workings of the College and the work of your student representatives is key. Therefore I, the *Felix* Editor, on behalf of the team promise that:

We will, to the best of our ability, tell you the whole truth and nothing but the truth.

We will keep your confidence and will only publish something you say to us if you have explicitly said that we can.

We will work to expose unfairness and discrimination in all forms that it takes at the College.

We will treat fairly any article sent to us, regardless of point of view, and do our best to work with you to prepare it for publication.

Signed by: **JAMIE JOHN**



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EDITORIAL

Why People & Planet's league table doesn't work

niversity league tables are curious things. They purport to serve prospective students, distilling hand-wavy, qualitative concepts, such as teaching quality, innovation, and reputation into one neat number - a single, golden metric that is used to sort academic institutions and separate the wheat from the chaff. But primarily, they serve the coffers of the publications that compile them, providing easy, attention-grabbing headlines, and proprietary datasets that can be monetised.

Despite this, students, parents, and universities ascribe an inordinate level of importance to such tables. And so, we have to hand it to People & Planet (P&P), the student campaigning group that has taken the idea of university rankings and repurposed it to hold universities accountable for their sustainability efforts.

Each December, P&P releases its very own 'University League,' which it describes as 'the only comprehensive and independent league table of UK universities ranked by environmental and ethical performance!

P&P's environmental league table matters: The Guardian, a national newspaper, has been publishing it since 2011 (Times Higher Education published it before that). Furthermore, universities pay attention to it and write self-congratulatory press releases when they fare well.

First published in 2007, P&P's league table collates data from university websites, and the Higher Education Statistics Agency (HESA) and turns it into 14 scores, each relating to a different indicator of a university's sustainability.

Then, like most league tables, it uses a weighted sum model to turn those scores into an overall rating. Each category is assigned a weighting, related to how much P&P feels it matters to a university's overall sustainability. The 14 scores are multiplied by their respective weightings, and out pops a single number - the university's overall sustainability rating.

Comparing the weightings P&P has assigned for different categories is confusing. 'Environmental Policy and Strategy' is assigned a weight of 0.04, while 'Ethical Careers and Recruitment' gets a weight of 0.03. It is unclear

what exactly it is that merits the 0.01 difference.

But the real problems emerge when comparing universities to one another - as P&P does implicitly when it ranks them - or when you try, as we did here at Felix, to analyse a university's performance over time.

We compared Imperial's scores this year to its scores last year (see chart below), and what we

For each category, the highest score possible is 100, and the lowest is 0. This year, Imperial dropped 10 points in the 'Education' category.

Why? Well, last year, Imperial scored 10 points for 'providing academic staff with training on education for sustainable development, and this year, it has scored 0.

Why is this the case? It seems unlikely that Imperial has all of a sudden stopped providing this training, and indeed, it has not. We understand that the drop in score can be attributed to changes in how P&P assesses 'training' in this context. However, this methodology change has not been publicly reported

Let's take a look at another category, 'Auditing and EMS, where Imperial has gained 15 points from last year. Comparing year-on-year performance would suggest that Imperial has, just this year started auditing the areas of 'Waste management', 'Energy,' 'Water', and 'Emissions & Discharges'

Once again though, this is false. Imperial has audited these sectors for several years now, but P&P has only registered it this year.

We understand that universities are assessed for the P&P league table by student volunteers over the course of a few weeks,, and that the students assessing the universities change year

Felix went through every category for which Imperial's score has changed (see chart) and found that, in most cases, the reasons for changes are driven by errors in the assessments undertaken this year or last year, or by changes to methodology

Which is to say, comparing performance year upon year in this way is pointless, and comparing universities using P&P's table is at best challenging, and at worst impossible.

Apology

Issue 1837 horoscope

A horoscope appearing in Issue 1837 played on the double meaning of the word 'strip' in 'Gaza Strip'.

We, the Felix team, apologise sincerely for this. The horoscope in question was inappropriate, insensitive and wholly unacceptable, and should not have been printed.

We are well aware of the horrific conditions faced by Gazans at present, having reported throughout last term on the ways in which the war in the Middle East has affected members of the Imperial community.

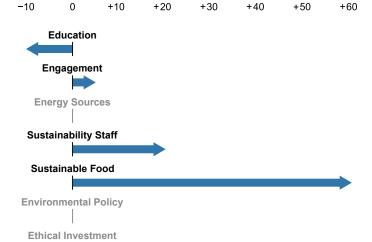
The horoscope has been referred to Imperial College Union, who will conduct a review, and help us ensure that similar content does not appear in the paper

We have decided not to publish Catnip, the section in which the horoscope was printed, while we await the Union's findings.

If you have any further questions or concerns, please contact Imperial College Union.

How has Imperial's People & Planet score changed?

Change in People & Planet score, 2023/24 vs 2022/23



Note: Many of the year-on-year

changes apparent in this chart result

from changes to People & Planet's

methodology, and oversights during

accompanying editorial for details.

the implementation of that

methodology. Refer to the

Carbon Management **Carbon Reduction**

Workers' Rights

Water Reduction **Ethical Careers**

Auditing & EMS

Waste & Recycling

Felix

Source: Felix analysis of People & Planet University League scores for Imperial College London. 2022/23 scores obtained using Wayback Machine

We wanted to use P&P's tables as an independent, reliable tool to assess Imperial's performance on sustainability, and to use the figure shown here as a visual illustration of that. But because of how the tables are compiled, that has not been possible.

To be clear, we respect P&P for its creativity,

in turning university rankings into a way to assess sustainability, but the concept has been implemented poorly. To truly serve as a useful measure of the sustainability of UK universities, the league table must assess institutions fairly and consistently, and changes to methodology must be reported clearly to the public.

NEWS

→ FROM P. 1: FLIP THE PLESIOSAUR

reptile that was the length of a London bus, and was alive during the Mesozoic Era.

In the documentary, Attenborough visits Imperial to understand how the pliosaur would have achieved the high speeds necessary to catch its prey, given its large size.

He speaks to Dr Luke Muscutt, a technician and aerospace engineering graduate working at Imperial's Hydrodynamics Lab – one of the UK's largest state-of-the-art wave tanks.

Dr Muscutt built a remote-controlled, free-swimming robotic plesiosaur named Flip. He wanted to study how plesiosaurs – the group of marine reptiles to which the pliosaur belonged – used their four large flippers to generate thrust.

Muscutt guides Attenborough as he pilots Flip, the robotic plesiosaur, through Imperial's wave tank.

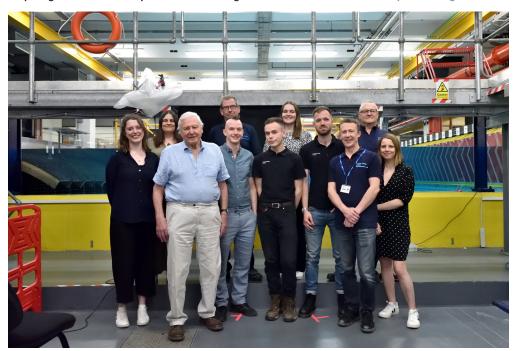
"The fossils of the pliosaur show that the flippers were very much like wings," he tells Attenborough. He says that the two hind flippers can operate at a much higher thrust and efficiency by utilising the wake of the two front flippers. "We see a similar effect in the flight of migrating birds such as geese."

Geese fly in a V-shaped formation, in which each bird uses the uplift created by the one in front of it.

"You can think of the pliosaur as



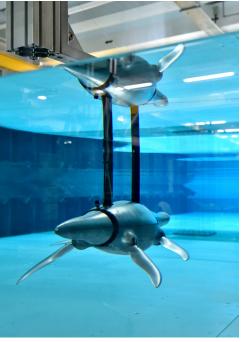
Preparing to film the robotic plesiosaur swimming in the tank, Jo Mieszkowski for Imperial College London



Sir David Attenborough and the team at Imperial. Jo Mieszkowski for Imperial College London

almost two birds, one flying behind the other," explains Muscutt. "The hind flipper has increases in thrust and efficiency of up to 40%. This would have increased the swimming speed that pliosaurs would be able to achieve, and increased the number of different things it could eat."

Estimates suggest the plesiosaur could reach speeds of up to 30mph, which, says



Flip the robot plesiosaur swimming in the wave tank at Imperial's Hydrodynamics Lab.

Jo Mieszkowski for Imperial College London



Linked article by Caroline Brogan,
Media Manager (Engineering),

Imperial College London.

Attenborough, would make it "one of the fastest animals in the Jurassic seas".

To learn more about Muscutt's robotic pliosaur and how it was filmed in Imperial's wave tank, scan the QR code.

New legislation to tackle spiking

Editor-in-Chief JAMIE JOHN

he government last month announced new legislation to make it clear that spiking – putting alcohol or drugs into another person's drink or body without consent – is a crime. The change comes as part of a wider package that includes the training of hundreds more door staff to spot potential perpetrators and signs of spiking in patrons.

Other measures announced include:

- Investment in research into spiking test kits, that will enable venues and police to detect if someone's drink has been spiked in real-time.
 - Intensive operations to tackle spik-

ing during key weeks, run by the National Police Chiefs Council (NPCC).

- An online tool to make it easier for people to report spiking anonymously.
- Support for the higher education regulator, the Office for Students, as it takes action to ensure universities and other higher education institutions prevent and address misconduct.

It is already illegal to maliciously administer 'poison or [any] other destructive or noxious thing' with the intent to endanger someone's life, or inflict grievous bodily harm, under the Offences Against the Person Act 1861. But the new legislation updates part of the act to clarify that 'without any doubt,

spiking is illegal.' It will be backed with separate guidance, set in law, to provide a clear, unequivocal definition of what spiking is.

Campaigners have welcomed the government's crackdown, but expressed frustration that the crime is not considered a specific criminal offence.

The government has argued that spiking is already covered under existing offences, so a new separate law is unnecessary.

Campaigners say a separate law would encourage victims to come forward, simplify legislation, and improve police data.

From 2018 to 2022, drink-spiking offences in London more than quadrupled, according to data from the Metropolitan Police.

University Challenge: Imperial thrashes Lincoln College

Editor-in-Chief JAMIE JOHN

mperial has progressed to the third round of University Challenge, after coasting to victory against Lincoln College, Oxford.

The team of Lee, Jones, Haddad and Debnath scored 250 points to Lincoln's 120, exhibiting their knowledge on topics ranging from Jacobean tragedies to 20th -century West African politics.

'On so many of those starter questions, you guys pounced, but just a fraction too late,' host Amol Rajan told a deflated Lincoln team, expressing his condolences.

'It's amazing how much you know about non-science subjects, given what you guys are studying,' he chuckled to Imperial.



Imperial's University Challenge team. Left to right: Justin Lee, Adam Jones, Suraiya Haddad, Sourajit Debnath. BBC

Test yourself

Imperial's team got all of the following questions (and more!) correct on their way to beating Lincoln. How well can you do?

 Having a short, curved blade with a sickle-like protrusion, harpe was used by which mythological hero to decapitate the Gorgon Medusa?

- Pithecanthropus Erectus is a musical interpretation of the history of human evolution, written by which jazz composer?
- . Name either of the two Norse sagas that

are sources for the life of Gudrid the Far-Travelled, born in the late 10th century, and described as "the Viking woman who sailed to America and walked to Rome." One saga is named after a Norwegian explorer, the other after settlers of a large island.

- From 1892, the organisation known as Katipunan opposed colonial rule in which present-day country? It declared independence from Spain 1898.
- 5. Name either of the West African political leaders who in 1957, made a ten-year wager as to whether one of the gradualist policies of one would be more effective than the transformationalist policies of the other.

 One would remain in power until 1993, while the other was ousted in a 1966 coup, in Cote d'Ivoire and Ghana respectively.

Answers: 1. Perseus, 2. Charles Mingus, 3. Saga of the Greenlanders/The Saga of Erik the Red, 4. Philippines, 5. Kwame Mkrumah/Félix Houphouët-Boigny

Imperial rises six places in People & Planet sustainability rankings

Rise driven by sustainable food policy, new sustainability staff, and changes to P&P's methodology.

Editor-in-Chief JAMIE JOHN

his year's People & Planet University
League sees Imperial rise six places,
ranking 98th out of 151 higher education
institutions. The College has been awarded
a score of 40.4%, up from 33.4% last year.
The rise was driven by its Sustainable Food
and Drink Policy, the recruitment of new
staff to its sustainability team, and changes
to People & Planet's methodology for
assessing universities.

Imperial's Sustainable Food and Drink Policy was launched in December 2022, but was only registered by People & Planet this year. It includes commitments to: remove beef products from College menus by 2025/25; only serve fish that is certified by the Marine Stewardship Council; introduce a revised reusable cup scheme; and prioritise local, seasonal produce.

Professor Tim Green, Imperial's Academic Leader for Sustainability, said the College is focused on 'operating ever more sustainably as a university.'

'As outlined in Imperial's Sustainability Strategy, we are committed to decarbonising our campuses by 2040 and are embedding sustainability in our catering, laboratories, travel policy,

EDITORIAL

Why People & Planet's league table doesn't work

READ MORE ON 3

offices, education, partnerships and procurement.

'We are pleased to see that our People & Planet score has improved this year, and we hope to see our score increasing as the measures we are taking bring results.'

The Sophia Prize for Environmental Writing is awarding £400 to one outstanding, inspiring and accessible article that helps tackle climate defeatism and covers an economic, cultural or scientific innovation that helps fight global warming.



ENVIRONMENT

An interview with Andy Frepp of Moody's Analytics

Felix spoke to ex-**Imperial Maths student** Andy Frepp, discussing his career, and how climate change is affecting financial services.

Environment Editor SIMRAN PATEL

ndy Frepp graduated from Imperial in 1985 and is now the General Manager leading the Enterprise Risk Solutions business for Moody's Analytics.

What does Moody's Analytics do?

Moody's is still primarily known as a credit rating agency, but it has built a data analytics and software business over the last 12-15 years, called Moody's Analytics. Moody's Analytics provides the tools that banks, insurers, and asset managers would use to effectively manage the risks on their balance sheets. Our work spans the curation and cleansing of third-party data, using that data to create models and then building software to allow our

customers to use the data and models in their business.

It is probably important from an Imperial perspective to know that there are a wide range of roles at Moody's; understanding credit is very important but there are many other interesting and challenging roles. Only a few years ago, we would have just thought about credit as the main risk - maybe some of the other financial risks like interest rate risk. Today we are talking about integrated risk assessment. An organisation is obviously exposed to credit, but it's exposed to a range of other risks – whether it's cyber, ESG [Environmental, Social and Governance], or climate. We're now starting to do the same data analytics and modelling which we did for credit on these new risks. And all these risks potentially have some relationship, so we're doing some interesting correlation modelling.

As an example, in terms of climate change, we do a lot

Maths teaches you that there is a structured way of solving problems which helps you hugely, particularly in the business I'm in.

of work in looking at future climate scenarios and the impact those scenarios will have on financial & other assets. We also look at the analytics around companies transitioning to a net-zero world - whether it's carbon credits, renewable electricity, or something else. We

Moody's **ANALYTICS**

also work on where companies should think about putting physical assets like a wind farm - what will the wind patterns be, is the area prone to earthquakes or hurricanes, and what that means for engineering.

Can you give us a brief outline of your journey as a Maths student at Imperial to **General Manager of Moody's Analytics?**

I did Maths at Imperial. At that time if you studied Maths, you ended up going into either accountancy or actuarial science. I chose actuarial science and went to work for a life company in Edinburgh, called Scottish Widows. Once I qualified, I realised I didn't want to do any of that technicalwork, so I instead spent the next 15-20 years doing business-related roles at Scottish Widows - principally at the customer end of the business. Somewhere in there, I did an MBA. I got to a fairly senior level, and when you get to that level there's a choice you make. Do you want to continue to climb one long and complex corporate ladder, or do you want to do something else? I decided to leave my senior well-paid position and join what you might call a startup today, called Barrie & Hibbert. This was a very niche, technically focused modelling and software business for life insurers. They were doing leading-edge maths for the evaluation of life insurance company guarantees. The founders wanted somebody to build a business, so I went there, and we successfully built the business over five years as CEO. We then decided to sell the business and we were bought by Moody's in 2012. From 2012 onwards we integrated into Moody's. At some point, my current boss wanted me to come to New York and help build what currently is Moody's Analytics into a bigger business. That's what I've been doing since 2014. Over the last 10 years, we built a franchise for a thousand insurance customers, generating hundreds of millions of dollars in revenue. We've got a very extensive insurance analytics business, which ranges from valuing complex derivatives for life insurers to complex hurricane and earthquake modelling. So that's how I got to where I got there was a lot of luck along the way.

How has your time at Imperial helped you in your current role?

Just being at Imperial - the name helps. There is a natural assumption about who you are and what you do as an Imperial graduate. Secondly, doing a straight Maths degree at Imperial was ridiculously difficult and required huge benefit.

a lot of hard work. There's something intellectually challenging about doing complex analyses at Imperial. Maths also teaches you that there is a structured way of solving problems which helps you hugely, particularly in the business I'm in. Thirdly, Imperial students have got a great grounding in how to translate complex things into simple words. I was primarily at the customer end of Barrie & Hibbert, but being able to understand their highly complex stochastic differential equations, and

translate that into what a customer might think, is a

How is climate change affecting financial products and services?

One of the challenges with climate change for companies is that any financial impact is perceived to be too far in the future. For most organisations, thinking five years out is a long time – even for financial institutions who have longer time horizons, thinking about 2050 is a challenge. So, you have this tension between knowing the impact of climate change in 30-40 years but those impacts not translating into substantial financial impact today.



If you look at economic losses caused by climate events in any one year, only about a third of the loses are covered by insurance; the balance ends up being picked up by governments, companies and ultimately me and you.

The way to think about this is not to focus just on the future impacts of climate change, but what has and is happening now. You see everyday news stories about more frequent and severe climate events – these immediate risks are real and can have significant implications for companies around the world. Insurance can help to mitigate these risks, but it is becoming increasingly difficult for insurers to actually cover some of these risks – insuring properties in areas where there is increased risk of wildfire (California, for example) or insuring properties from hurricanes or floods in Florida. Helping insurers model these risk more accurately so they can offer insurance is something we are very focused on.

Climate change is also having a material impact on many business sectors other than insurance. The risk to physical assets is growing and insurers do not and maybe cannot cover all of these risks. If you look at the economic losses caused by climate events in any one year,



Andy Frepp, Imperial alumnus, and General Manager leading the Enterprise Risk Solutions business for Moody's Analytics. Moody's Analytics

only about a third of the loses are covered by insurance; the balance ends up being picked up by governments, companies and ultimately me and you. So not only are we building models and tools to help insurers, we are also helping companies and governments to better understand the risks that they are retaining by essentially self insuring. Take a bank, lending money to companies to invest in a building in areas that are significantly at risk from hurricane or flood. It is getting more difficult to insure these buildings, but for the bank the building is the asset that is backing the loan should the company default. If the building gets destroyed from a climate event and the company defaults on the loan then the bank has nothing. Our models and analytics can help the bank identify and quantify this risk.

Can Imperial students without finance backgrounds who are passionate about the environment get involved in Moody's Analytics?

Yes. The actual underlying financial analysis is not

that complicated - any student at Imperial has enough grounding in Maths to do pretty much anything in finance. There are certain jobs where we look for technical skills if somebody wants to build financial models, hurricane models, or earthquake models. But generally, what is more important to me is the person themselves - particularly things like intellectual curiosity and interpersonal skills. I wouldn't see Moody's as a financial services company. We deal with financial things, but at the end of the day we are helping our customers with business risks and decisions. There are lots of opportunity here you've got product management, marketing, business strategy, and customer facing roles for the folks who don't come from a finance background. In our graduate recruitment programs, we tend to take up very broad range of disciplines.



fies that world leaders are finally serious about phasing out these carbon-emitting energy sources. On the first day of the conference, the Loss and Damage fund was also officially enacted: money generated for this fund will support the nations that are currently most impacted by climate change, such as the effects

COP outcome, which, at face value, signi-

of increased severe tropical storms and heavy flood-

Additionally, the parties discussed increasing climate

a n d

building

finance

New year, new goals.

What have the world's nations agreed to achieve on the climate crisis

front?

WITH **ZANNA BUCKLAND**

he start of a new year time for reflection and re-evaluation. So,

it seems relevant to discuss the recent COP28 climate summit and the current state of global commitments to environmental protection.

COP28 took place from 30th November to 13th December 2023 in Dubai, UAE. Two weeks of discussions between politicians and speeches from climate researchers and activists culminated in the 'UAE Consensus', a revised non-binding agreement on global climate commitments.

Overall, COP28 is regarded as having been successful in decisively setting a course for future action. The most widely heralded outcome was the first-ever explicit mention of transitioning away from fossil fuels in a formal

greater technological capacity renewable-energy sources such as wind and solar power. The conference also brought greater attention to the need to reduce methane emissions - which have a much higher potential to influence global warming than CO₂ does - and

It has recently been announced that the president of this year's COP29, which will be hosted in Baku, Azerbaijan, is slated to be Mukhtar Babayev, a former executive of the State Oil Company of the Azerbaijan Republic (SOCAR), who is now the nation's Minister for Ecology and Natural Resources. This follows COP28's appointment of Sultan Al-Jaber as its president, which was similarly controversial due to his ties to the Abu Dhabi National Oil Company.

to target industries that produce high

levels of greenhouse-gas emissions.

These might seem like surprising appointments on the surface, but in countries such as the UAE and Azerbaijan, whose main exports are oil and gas, it makes sense that many of their most powerful political figures are linked to the industry. Furthermore, these ties might give them a better understanding than other politicians of the relationship between such commodities and those benefitting from them.

So, it is important that

stakeholders are kept in the conversation, instead of being pushed out; the real question is whether they should be at the head of the table, in charge of the decision making. It is unclear whether the explicit reference to phasing out fossil fuels in the UAE

Consensus was included due to or in spite of Al-Jaber's presidency and the large number of attendees from big oil corporations. However, it will only be possible to see whether this kind of cooperation is beneficial to progress after a few more COPs have been hosted in this manner - Azerbaijan will be only the third major oil-exporting country to host a COP conference. Brazil has also been chosen to host COP30 in 2025, and it will be interesting to see whether that will lead to an increased focus on the impacts of rainforest deforestation and the importance of carbon sinks in mitigating climate change.

Another significant element of COP28 was completion of the first Global Stocktake. Originally proposed in the 2015 Paris Agreement, the stocktake is an assessment of the results of climate action so far. In the stocktake, the UN Framework Convention on Climate Change (UN-FCCC) assesses the state of global action against climate change, and the ultimate conclusion of this was bleak. Earth's average global temperature is currently more than 1.1°C higher than pre-industrial levels, less than 0.4°C away from the Paris Agreement's critical temperature of 1.5°C. The world is currently on track to reach an average temperature of 2.4-2.6°C higher than pre-industrial levels by 2100, which, although an improvement on the original forecast of 3.7-4.8°C, will still have devastating consequences for humanity and wildlife. Perhaps this calls for greater climate change adaptation measures on top of existing commitments to mitigate the issue.

The second Global Stocktake will be carried out four years from now, so what political action might we see from nations in the coming years to avoid a similar outlook in 2028? Almost every country in the world has agreed to phase out fossil fuels, so implementing that will be high up on the global agenda. We might see this in the form of more widespread incentives to switch to renewable energy and discouragement of oil- and gas-consuming activities, such as petrol vehicles and gas burners and heating, as well as accelerated development and rollout of carbon-capture technologies.

The UK under increasing pressure to follow through on their climate commitments: ClientEarth is a non-profit organisation that has taken the UK government to court over its ineffective policies several times in the past year. Though the government's current net-zero policies remain woefully unambitious, we can hope that other countries' net-zero goals have put pressure on the UK government to act. The benefits of restoring nature, both for combatting climate change and for biodiversity, was a major discussion topic for the UK at COP28 and will also be high up on its 2024 agenda. Ideally, we will see increased funding being directed towards local nature preservation and rewilding projects in the future.

The climate crisis remains the most publicised environmental issue, but climate-change mitigation is only one part of the wider goal to preserve Earth's natural resources and aim for a future in which humanity is able to sustain itself without destroying the planet in the process. Although I could do a deep dive into the climate-change figures for 2023 - most notably the alarming red line of average global temperatures illustrating the world's hottest year since records began - this ignores other equally important aspects of the issue. Life can't be simplified down to numbers in a dataset, or a problem with a single solution - it is real organisms in real ecosystems, and it's crucial to maintain perspective about humanity's place in this complex landscape. In the years ahead, world leaders would do well to be mindful of this fact and be proactive in the decisions they make for their citizens.



REP OF THE MONTH

The Representation Team have just begun their 'Rep of the Month' scheme for the 23/24 academic year.

This awards a student representative from Undergraduate and Postgraduate level a £10 Amazon voucher for their commitment and dedication to their role as a Rep!

For the month of November, we are pleased to announce that the following students have been awarded 'Rep of the Month':

Undergraduate



Caroline Zhang

Department of Chemistry

Caroline's nomination stated that Caroline is kind, hardworking and is always on top of things making sure that the years feedback is delivered clearly and concisely.

Albeit being only a first year rep, Caroline has shown that she is more than suitable to carry the burden of academic rep for the first year chemists.

She utilises her steadfastness and organisation skills to fulfil -to the best of her ability- the role she has been elected for by her fellow peers.

Postgraduate



Kazuki Ozawa

Department of Aeronautics

Kazuki's nomination stated that Kazuki is proactive in arranging social events for the department.

Kazuki also brings their culture and interests beyond college activities to share with fellow PhD students by organising tea gatherings to try Japanese tea.

Kazuki also keeps communication with the department and students open.

Congratulations to both reps!





REP OF THE MONTH

The Representation Team have just begun their 'Rep of the Month' scheme for the 23/24 academic year.

This awards a student representative from Undergraduate and Postgraduate level a £10 Amazon voucher for their commitment and dedication to their role as a Rep!

For the month of December, we are pleased to announce that the following students have been awarded 'Rep of the Month':

Undergraduate



Aigun Gassanova

Department of Medicine

Aigun's nomination stated that Aigun does her best to make sure students are not afraid of speaking up about their concerns, she even made a special inbox for concerns and queries for her cohort.

Aigun does her role as a representative perfectly.

Aigun is also committed to keeping the cohort in contact with each other and set up the buddy groups for students to socialise during their placements.

Postgraduate



Tomás Lopes

Department of Life Sciences

Tomás' nomination stated that Tomás stands out as a representative of the month because of his ability to articulate the concerns of the course while creating a collaborative environment.

One of his notable strengths is his effective communication with course directors.

He bridges the gap between the students and faculty while being proactive in gathering feedback to improve the course structure and content.

Congratulations to both reps!



BOOKS

The fault in our stars... well, at least here at Felix!

The perennial problem of rating books, and how stars aren't quite so cut out for it.

Books Editor

FIYINFOLUWA T. OLADIPO

Imperial – the title to our review of mid-2023's satirical sensation ends: '[Yellowface] hits the mark, sometimes.' The intentional ambivalence in which our reviewer Delia reports on both its rights and wrongs concludes, '[It] is a fun, quick read, though suffering from an episodic lack of subtlety.' But for a certain type of reader, it might beg the question of where exactly it hits the marks on an imagined scale. Say it's out of five. Ten, if you really want to skip on the white space. What's the number? And a unit? Make it the classic: stars.

At *Felix*, it hasn't always been this way (look far enough through the archives and you will find those familiar stamps of approval). But since I started writing for the paper, there is a tendency to leave our opinions on the books populating our shelves and coming through our inboxes in the mere paragraphs. And leave the numerical ratings aside.

Call it editorial diligence (or the lack thereof) or the frenzy of the Felix office before the Thursday print deadline (the cats can get wild), but aptly giving star ratings would be a hard part of the job - if it's done right. Many newspapers for example, The Guardian and The Times as notable examples, use stars to navigate the maze of film and music releases less controversially. When reviewing books, however, the lines can get a little blurred - at the time of writing, both newspapers do not feature star ratings in their respective Books sections. In many subtle ways, the game changes. The number of factors influencing any given review is better likened to seasonal variations rather than a discrete list: dispositional changes across a reading period, coursework demands, the significance of that work in that moment in time, and of course, whether you're able to actually read it, as

opposed to glazing over its contents in the hope that anything significant registers.

In the end, thoughts from hours of consumption must be poured into the mold of an approximately 500-word article, before then being further trimmed by the necessities of good editing. And so, the thought of throwing in a few stars might feel heartless. Or worse still, plain meaningless.

It goes without saying that stars are futile, without the context that a review would ideally convey (beyond being a vague indicator of quality). And with book reviews, it can be especially difficult. The idea of, say, three-and-a-half stars arguably worsens as the average time spent with the piece of media increases: from an album, to a movie, to a medium-length novel. And the topic of what a book's intention was and is takes up a considerable slice of any conversation, more than its artistic merit or entertainment value.

The word <code>mīmēsis</code>, used by Aristotle in <code>Poetics</code>, describes the essential burden shouldered by many forms of good art: a human imitation or replication of the many facets of life. The books we read hopefully task themselves with this mandate, in however many pages it takes to. And as reviewers, it follows that it would be our job to properly evaluate how well they achieve this – if they indeed do.

So, if the stars aren't able to handle it, then our monologues will have to manage.

If you think you have a solution to this problem, go ahead and email us at books.felix@imperial.ac.uk

We might even make it the *Felix* Books standard (or at the least, get a good laugh). Submissions are open till the **29th of January 2024**.

(Multiple entries welcomed.)

Minor Detail by Adiana Shibli

Poignant tale of historic oppression combined with magical realist brilliance.

Books Editor MOHAMMAD MAJLISI

alestinian writer Adiana Shibli's 2017 novella plays on the idea of what it means to witness. Focusing on the gang-rape and murder of a young Arab girl by Israeli militants during the Nakba, or War for Independence (the violent uprising leading to the displacement of 700,000 Palestinians from what is now Israel), and in its second half, the attempt of a young unnamed woman to find her burial spot several decades later, *Minor Detail* is one of the most beautiful books I've read in my life.

The word for martyr, shaheed is in fact the same as, and derived from, the word for witness, playing on the idea within Palestinian activism and art for the last 70 years of telling the horrors of the Nakba and occupation. This idea features directly within the plot and the central themes of the novella, as its protagonist seeks not to right a 70-year wrong, but simply to see and witness a footnote in history.

It's absolutely harrowing, brilliantly written by Shibli (and translated by Elisabeth Jaquette), and its elements of magical realism enhance the story to a feverish pitch, to highlight the tragic events based wholly in fact on a true story.



An unfinished painting of Yemen Valley, Palestine, 1868.

FOOD&TRAVEL

Jesus turned water to wine, let's turn eggs into a devilish drink...

Christmas has ended, but holiday spirit lingers at the bottom of the delicious eggnog that we recommend you save for the next jolly season.

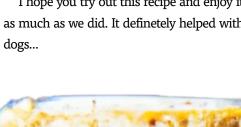
RHUMBARD RUMMY

um, rum yourself gently down to the kitchen as Christmas gives a perfect opportunity to whip up an eggnog that family members will enjoy throughout the entire Christmas season. It helps soften the air filled with barking chihuahuas, family drama and those comments from your grandma that nobody asked her for, but that she nonetheless gifted to every grandchild that did not study

All jokes aside, the eggnog was a delicious dessert that my family and I devoured within days. We made a very large batch (roughly 8L) to which a serving was only 200ml. I thank my American friend Nicole for having introduced it to me. It added a little bit of the American spirit into Christmas that I did not grow up with. I brought with me the traditional Christmas songs and dinner and she brough dessert. It is nice when cultures can integrate via

Whether eggnog is food or not, is still up for debate: it is rather a versatile drink. Soft and sweet, but also hot with alcohol, it can kick some good spirit into the evening. We ate it as a sort of mousse and it can be whipped into many forms. Of course, after two weeks in the fridge, it will turn into liquid.

I hope you try out this recipe and enjoy it as much as we did. It definetely helped with



Ingredients

- 1 dozen eggs separated
- 1 scant cup sugar
- 1 quart whipping cream
- 1 oz 150 proof rum (needs to be this strong to "cook" egg yolks)
- 1 fifth bourbon or rye whis-
- 1 tsp vanilla

Instructions

- Whip egg yolks until light and fluffy, then beat in sugar.
- Add rum slowly and stirring carefully to "cook" eggs.
- 3. Add vanilla and 1/2 of bourbon or rye stirring in well. Beat cream stiff. Beat egg whites to stiff peaks.
- 4. Pour egg yolk mixture into large bowl. Dump cream and egg whites on top. Carefully fold cream and egg whites into yolk mixture while slowly adding remaining whiskey. This is a two person

Tips!

- 1. Make a day before serving at the party but it can also be eaten/ drunk immediately! It may just be a bit foamy and thick. Always fold gently to remix.
- Top each serving with a sprinkle of nutmeg.
- To keep cold at a party, float a brick of very good quality vanilla ice
- 4. Also, I never used all the whiskey the second time as it becomes too strong but it is up to your taste.



Leaving 2023 behind, students embarked home for three weeks to sleep, ski, and evidently, to study.

Food&Travel Editor

CHARLOTTE PROBSTEL

t is around this season that I feel for my international peers that get three weeks off from university, without the means to travel home to their families. While European and British students find a sub-£500 travel ticket to the comfort of their hometowns, it is always important to remember that not everyone has been able to do the same. Regardless, I hope you all had a wonderful Christmas break. For this week's paper, spurred by my curiosity about how Imperial students spend their winter holidays, Felix sent out a survey. We received responses from seven students, whose stories I am about to regale you with.

Here or yonder

With a mean age of 20.4 years, the respondents originated from Portugal, Hong Kong, the UK, Italy, India, Canada, France and Germany – and to no one's surprise, the majority travelled back to their home countries for the winter break.

The student from Hong Kong took advantage of Imperial's location in the UK and went to Hampshire, England rather than Hong Kong. The other seven respondents returned home.

Prices, travel times and jet lag do not offer much in the way of incentives for those who must travel long distances to get home for the holidays. With the average ticket to travel across the Atlantic or across Europe towards Asia costing thousands of pounds, and a minimum flight time of six hours with potential overlays, it is just not worth it.

European students on the other hand, look at flight prices from £200 to £600.

To rest or not to rest, that is the question

The two people that went skiing both went to Tyrol, Austria which is known for its beautiful alps, apres-ski culture and endless kilometers of skislopes. Three respondees said they did nothing during the holidays, one student studied diligently and one student for an Imperial hackathon.

'Nothing' nowadays often means 'nothing useful' as if we expect every day to be a day of active fulfillment. Rest, sleep, and staring blankly up at the ceiling are all activities that require different levels of effort. It is often the case that students feel they are doing 'nothing', when in reality, it is simply the case that their standards are too high. We all need a break at some point!

To return to the clan

Luckily, most respondents used the time off campus to visit their friends and family and to catch up. It is during these times that you can meet at 11am for breakfast on a random Wednesday – that you can meet with a friend without having to worry if your schedules align. Family members fly in from all around the world to celebrate being together.

Other respondents met up with old friends in their hometown; basking in the memories of their old days in secondary school. One person attended a hockey match. Another watched as many movies as they could, and enjoyed the cinema.

Sadly, university did not release its stranglehold on all of our dear respondents. Three of the seven had to study for exams.

The Yule season brings celebration

Six of the respondents celebrated Christmas, but only four celebrated New Year's Eve. The December-January (Jule) season brings with it the week between the 24th and the 31st where the world stands still. Shops in some Christian countries close from the 25th to the 27th, to give tired workers a break after Christmas. Then come the 28th, 29th, and 30th and daily activities are few and far between. Time passes by without meaning and everyone awaits the New Year. Some while away the final days of the break finishing their resolutions, while others stress about finishing their work before the 31st deadline. One student spend the time well to practice their driving in their

home country and

try out the autobahn.



Exams?

What better way to begin the new year than with a season of exams and coursework deadlines. Though the majority of my non-Imperial friends and family members call this "unfair" and "tortorous", 71.4% of the respondees voted to have exams after the break, rather than at the end of the previous term. I am interested to hear other student's opinion of this.

Watch out for more surveys about the student body on our Instagram page @felix imperial.

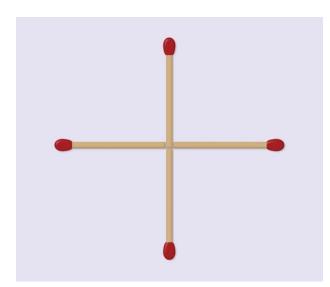


PUZZLES

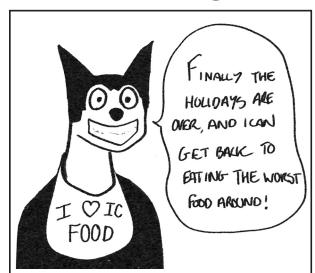
Hello Puzzlers! Another matchstick puzzle for you - can you move only one matchstick to form a square?

Crossword answers for Issue 1837





FELIX #012







SUDOKU

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CROSSWORD

Across

- 1. *Message for the solver, along with 5, 11, 13, 164, 165, 166 and 167 Across. [4 6 4 6 6 4 6 4] 5. *
- 11. * 13.*
- 19. Sing the praises of. [5]
- 21. Dead-set. [6]
- 22. Change a fuse, e.g. [6]
- 23. It comes below a strike. [5]
- 24. It might need ironing. [6]
- 25. Purview. [5]
- 28. Pink and white flowering shrub. [6]
- 29. Often the best score. [3]
- 30. Rankine alternative. [6]
- 31. Kind of digital file (abbr.). [3]
- 32. Postman Pat's cat and certain Labour MP, e.g. [6]
- 33. They're found on one side of the spectrum. [7]
- 36. You need three of this for a stool. [3]
- 37. Of a molecule, having no charge asymmetry.
- 40. Science fiction's Isaac. [6]
- 42. One who turns their nose up often. [4]
- -effect" describing overzealous
- weighting of forensic evidence by jurors. [3]
- 46. Having a handle. [7]
- 51. Composer Raine who wrote music for
- Celeste and Minecraft. [4]
- 52. Moray, e.g. [3]
- 54. Option in many a poll. [44]
- 57. Now subsumed English healthcare body. [4]
- 58. Wood used for Guitar bodies. [6 6]
- 62. Flatulence. [9]
- 65. Arctic natives. [4]
- 68. Windows serif font. [6]
- 69. Quite [6]
- 71. Pauses on fighting. [6]
- 72. Tennis champion Andre. [6]
- 74. Neon and Argon, e.g. [55]
- 76. Dirtying. [7]
- 77. Disapproving sound. [3-3]
- 78. Stress an engineer will consider. [5]
- 79. Where the first halves of concept albums might be found. [21-5]
- $80. \, Extinct \, English \, letter \, still \, found \, in \,$ Icelandic. [3]
- College, Oxford. [5]
- 83. Sign somebody's execution warrant. [425]
- __, storage method. [4] 87. Hard
- 88. English poet Philip. [6]
- Progresso, Brazilian motto. [51]
- 91. Myers-Briggs personality category. [4]
- 95. Make like those in Eastern Europe, e.g. [11]
- 97. Important artery. [5]
- 100. Resource in Settlers of Catan. [3]
- 101. Product of Jellycat. [8]
- 105. Famous classical composer. [5] 107. Word whose anagram is its antonym. [6]
- 109. Neutrinos, e.g. [7]
- 110. Quality of the tuba's section. [10]
- 114. French composer Jean-Phillippe. [6]
- 115. Anger. [6]
- 116. Iridescent butterfly. [6]
- 117. Begin, as a golfer. [3 3]
- 119. What the operator does. [4]
- 120. In the manner of one asking for
- forgiveness. [9]
- 122. Idolising. [12]
- 124. Stephanie Beatriz's character in Brooklyn
- Nine-Nine. [4]
- 125. Cried incessantly. [6 2]
- 127. Centre of the Hand of Fatima. [3]
- 128. Clans, sorts. [4]
- 132. Disorganised, [7]
- 135. Australian singer of You've Changed. [3]
- 136. Word following "molar" or "coronation". [4] 55. American organisation for university

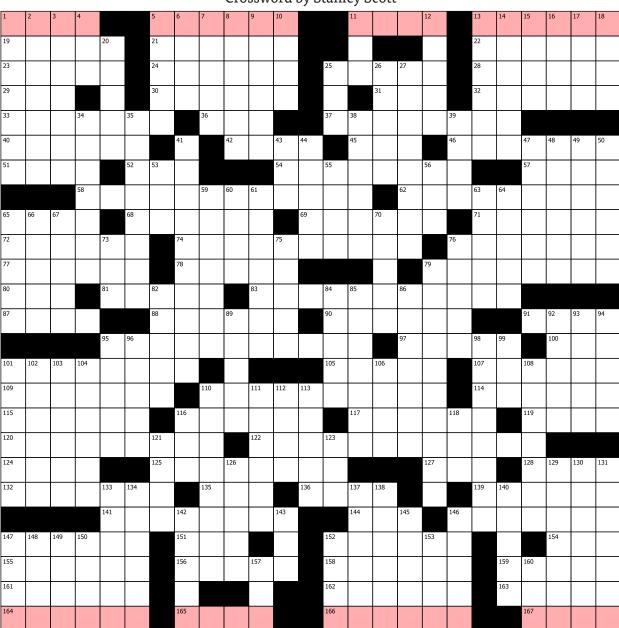
- 139. Type of golden fabric.
- 141. Central American term for farm worker. [8]
- 144. Expressions of gratitude in the North of
- England. [3] 146. Cut, as jeans. [7]
- 147. Without reason or provocation. [6]
- 151. One part of the
- "three finger salute", in computing. [3] 152. Northern Irish county.
- [6]
- 154. Barker or Perkins, e.g. [3]
- 155. Done as a favour. [3-3]
- 156. Live at the Apollo frequenter Zoe. [5]
- 158. Crab, Cat's Eye or Lagoon, e.g. [6]
- 159. "We're Going to _!", song by Vengaboys.
- 161. French impressionist painter. [6]
- 162. Dull. [6] 163. 'In information.'
- [5] 164.*
- 165. *
- 166.* 167.*

Down

- 1. Animalistic. [7]
- 2. 'Spare no <u>.'</u> [7]
- 4. Kind of hill. [3]
- 6. Court document header.
- [22]
- 7. Main character of a Ruth Jones comedy series (abbr.). [5]
- 8. What the cat with a hairball does. [6]
- 9. Flag on a ship, perhaps. [6]
- 10. British WWII gun. [4]
- 11. What o, η , τo , $o\iota$ and $\tau \alpha$ all mean in Greek. [3]
- 12. Ready followers. [3 2]
- 13. Roman emperor. [6]
- 14. Units of magnetic flux. [6]
- 17. Name of data structure in computer science

- 25. Swanson of Parks and Recreation. [3]
- 26. Capital on the Svislach. [5]
- 27. Encroaches. [8]
- movement. [7]
- 38. Kinds of chamber music groups. [6]
- 43. Optimisation method in mathematics. [3]
- 44. French placename suffix. [5]
- 49. To be in Italy. [6]
- 50. Insults, colloquially. [6]
- belong. [3]

Crossword by Stanley Scott



- 3. Understudy. [5-2]
- 5. You find them in wax. [5]

- 15. Female bleaters. [4]
- 16. Scandinavian name, or zeroes. [4]
- coined by Edward Fredkin. [4] 18. American version of British "ayes to the
- right". [4]
- 20. What the meditator might do. [3 2]
- 34. Member of a certain 20th century literary
- 35. It's often corrected in adolescence. [8]
- 39. They may be of a nation, or of nature. [4]
- 41. Some rulers of Wallachia. [10]
- 47. Plural mathematical term for 87 Across with
- a hole. [6] 48. 'Chewing
- 53. Rock genre to which My Chemical Romance

- sporting events. [4]
- 56. Paddle. [3]
- 59. Villain or bystander, e.g. [3-4] 60. "I drew my snicker___!" - Koko, the
- Mikado. [4] 61. The length of half a circumference. [25]
- 63. Ermine. [5] 64. Coffee becomes this with whiskey. [5]
- 65. Not wanting seconds. [5]
- 66. New World rodent. [5] 67. It appears on a school timetable. [5]
- 70. King in Nativity story. [5] 73. Student and son-in-law of Antonin Dvorak.

- 75. Tip pool. [5]

reduplicated. [5]

- 76. Scryer. [5]
- 79. Variety of flat fishes [5 5]. 82. Clay of a tennis court, perhaps. [5] 84. Japanese telephonic greeting, when
- 85. Sentient plants in fantasy novels. [7]
- 86. Scrolls important to theologists. [43] 89. Stock company. [5]
- 92. "I'll remember that." [5]
- 93. You need to check it on your tyres. [5] 94. King in Nativity story. [5]
- 95. Japanese board game. [5]
- 96. "I miss my clean white and my fancy French cologne" – Joni Mitchell, Carey. [5] 98. Most grassy. [8]

99. Saint giving her name to a city in Orange

- County, California. [3] 101. Grovels. [6]
- 102. Like pondlife. [6]
- 103. Backlash. [6] 104. A poetry teacher might get each student to
- read one. [6]

- 106. Exclamation after "this b**** empty!" in
- popular meme. [4] 108. Its varieties include infrared and nuclear
- magnetic resonance. [7] 110. (Stereotypically) having short hair and
- wearing shorts and a t-shirt, e.g. [8] 111. Show your face. [6]
- 112. Do as a snake or tarantula. [4] 113. One of a pair of well-known Biblical cities

[5].

- 116. Referencing style. [3] 118. Cool. [3] 121. Welsh for white, giving name to Antarctic
- bird. [4]
- 123. Character Sharples of Coronation Street. [3] 126. Deceive. [3 2]
- 129. Half of the field in cricket. [34]
- 130. Old German coin. [7]
- 131. Holstered weapon. [7]
- 133. Capitalist's metric. [6] 134. Alternative to grill. [3-3]
- 137. Actress Meryl of The Devil Wears Prada. [6] 138. Indian stew. [6]
- 140. Blur rival. [5]
- 142. Historical Islamic leader. [5] 143. Census takers. [3]
- 145. One from Riyadh. [5]
- 146. Ancient Chinese dynasty. [5]
- 147. Item in apothecary's inventory. [4] 148. From scratch. [4]
- 149. Hawaiian goose. [4] 150. Animated film, informally. [4]
- 152. Part of trio with ifs and buts. [4]. 153. Country singer Campbell of Rhinestone
- Cowboy. [8]
- 157. Type of logic gate. [3]
- 160. Input to 157 Down. [3]