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Felix interviews NASA Head of Science, Dr Nicola Fox > Page 4

Marking boycott begins and new strike dates announced > Page 3

College Council chair steps back after accusations of ‘inappropriate behaviour’

- ▶ *John Allan admits telling a woman her dress “suited her figure”, but denies all other allegations.*
- ▶ *Allan will also stand down as chairman of Tesco and Barratt Developments in June.*

Credit: Thomas Angus/Imperial College London

Jamie John Co-Editor-in-Chief

Tesco chair John Allan has stepped back from his role as Imperial College Council Chairman, after *The Guardian* reported that he is facing claims of ‘inappropriate and unprofessional behaviour’ from four women. None of the claims relate to his time at Imperial.

Allan strenuously denies three of the four allegations against him, but has accepted that in 2019, when he was serving as President of the Confederation of British Industry (CBI), he told a female employee that her dress “suited her figure”.

A spokesperson for Allan said: “Mr Allan was mortified after making the comment in 2019 and he immediately apologised. The person concerned

Continued on page 3...



John Allan, who this month stepped back as chair of Imperial College Council.

Security staff claim they were “punished” for speaking to *Felix*

- ▶ *Security staff alleged a “bullying culture” across the Imperial Security department and Campus Services management team.*

Isabella Ward Co-Editor-in-Chief

Security staff feel they are being punished following the publication of a *Felix* article (Issue 1824) which reported on instances of bullying perpetrated by the Senior Security team, Human Resources, and Campus Services management. “Since the publication of the article in *Felix* we have basically been put on an overtime ban,” claim the Security staff. Officers at Silwood

Park reported that excess shifts have not been offered to them, and instead have been manned by guards from the South Kensington campus, whose shifts were in turn covered by agency officers.

Allegedly, as London officers filling in for Silwood Park in Berkshire have to commute, they often arrive over one hour late, leaving their shift partners to work alone. “This is a dangerous situation and puts all students and staff

at risk,” a Silwood Park Security officer said.

In the article, *Felix* reported on how agency staff had compromised student and staff safety. “This makes no operational or financial sense for the College, [who] receive an inferior service for a very similar expenditure”, said a Security officer. “It appears to be a case of [College] management cutting off their nose to spite their face.”

Read the story from Issue 1824 online here:

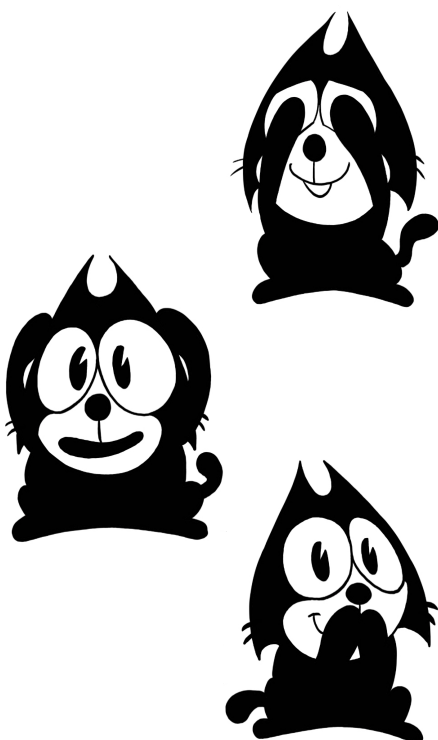


EDITORIAL

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The British Government needs to make up its mind

This week, the Government announced that international students will not be able to bring family members with them on student visas, unless they are studying a research postgraduate course. Critics have argued that the ban, which will come into place in January 2024, will put British universities under financial pressure.

The Government, however, says that net migration is at unsustainable levels. It argues that the number of dependents of overseas students has increased by 750% since 2019, and that this figure must fall.

The move appears to be a political one, coming, as it did, two days before migration figures were released by the Office for National Statistics. Those figures showed that net migration – the annual number of long-term immigrants entering the country minus number of long-term emigrants exiting – reached a record high of 606,000 in 2022.

They are heaping pressure onto the incumbent Conservative party, which made ‘taking back control’ of the United Kingdom’s borders a key election pledge in 2019. Net migration has increased threefold since then, and a poll carried out by Ipsos this month showed that only 29% of the public trust the Conservatives on immigration, compared with 38% for Labour.

There are genuine concerns around the pressures on housing and public services, but rather than dealing with the problem of supply, the Government has taken the more politically expedient approach of targeting students.

Furthermore, increases in the number of dependents can largely be attributed to government policy. The UK has frozen domestic undergraduate tuition fees at £9,250, which has forced universities to find other sources of income. Universities, in turn, have looked to international students, whose tuition fees are not capped. Chinese students make up a significant proportion of this intake; in 2021/22, 27% of all non-EU students in UK higher education institutions were from China.

However, over the past two years, as UK-China relations have deteriorated, policymakers and sector regulators have started to worry that universities are becoming too dependent on the nation for recruitment.

According to analysis by Wonkhe, universities have since started to diversify their international intake, with the number of students from, in particular, Nigeria and India increasing. These students, who tend to be older and more likely to have children or spouses, have brought with them a greater number of dependents. In 2022, reports Wonkhe, 60,923 dependents from Nigeria were awarded a visa, compared to 1,586 in 2019.

There are no easy options here, but the Government must make up its mind on what its priorities are. International students have been a major boon to the UK’s sputtering economy – in 2021/22, they were estimated to have boosted it by £41.9bn. Its most recent move will hurt the country’s reputation as a provider of higher education, and further increase pressures on universities.

Statement of Intent

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 we, the Felix Editors, 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, Isabella Ward, and Zanna Buckland
Co-Editors-in-Chief 2023**

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Continued from page 1... John Allan steps back...

agreed the matter was closed and no further action was taken. Regarding the other claims, they are simply untrue.”

Allan announced his decision at a meeting of College Council on Friday 12th May, following a discussion of the allegations against him. He will not take part in any Imperial activities until the situation is resolved. Deputy Chair John Cullen will step in as required in the meantime.

“John expressed that in the broader interests of the Imperial community, he has chosen to step back”, said Imperial College President, Hugh Brady, in an email to College leaders. “It was noted that none of these allegations relate to his role at Imperial, no complaints had been received by Imperial and that John vigorously denies the allegations.”

“Since these reports surfaced, I have had conversations with John, University Management Board, Heads of Departments and Council and feedback from the Imperial community was reflected in the discussion at Council”.

Over the past week, two companies Allan chaired have announced that he will stand down.

Tesco, the UK’s largest retailer, and housebuilder Barratt Developments, both said they had not received any complaints against Allan during his time as chair.

However, both firms expressed concerns that the allegations against him risk becoming a distraction to their businesses. Allan has chaired Tesco since 2015 and Barratt Developments since 2014. He will step down from both companies next month.

College Council

Since 2020, Allan has served as chairman of College Council, the governing and executive body of Imperial. College Council meets five times a year and is responsible for setting the College’s strategic direction, and overseeing its finance, property, investments and general business.

The Council Chair cannot be an employee, student, or honorary status-holder at the College, and does not receive any payments for the role, other than reimbursements of expenses.

John Allan

John Allan graduated with a degree in mathematical sciences from the University of Edinburgh in 1970, and has held senior roles at Royal Mail,

Deutsche Post, Dixons Carphone (now Currys plc), Samsonite, WorldPay, National Grid, and toy retailer Hamleys.

In 2006, he was made a Commander of the Order of the British Empire (CBE), for services to freight transport, having served for 11 years as CEO of supply chain and logistics company, Exel. Until last week, Allan was chairman of the boards of Tesco and Barratt Developments.

From 2018 to 2020, Allan served as President of the Confederation of British Industry (CBI), a lobbying group which has represented some of Britain’s biggest companies.

The CBI is facing separate allegations of sexual misconduct, which have prompted an exodus of its members. The group is currently under investigation by the City of London Police.

Timeline

9th May 2023: The Guardian reports that Allan is facing claims of ‘inappropriate and unprofessional behaviour’ from four women.

12th May 2023: Allan steps down from College Council

19th May 2023: Tesco announces Allan will step down as its chairman.

23rd May 2023: Barratt Developments announces Allan will step down as its chairman.

Imperial marking and assessment boycott begins

► *The UCU has also announced seven further days of strike action this term.*

Isabella Ward Co-Editor-in-Chief

Imperial staff members of the University and College Union (UCU) commenced a marking and assessment boycott on 17th May, as part of the local pay dispute. Participating staff will not contribute to, or mark, any summative assessment, including setting, invigilating, marking, or moderating any exams or assessments.

The boycott may continue until October, following the UCU’s renewal of its strike mandate for a further six months in April, unless either the dispute is settled, or the UCU calls off the boycott before then.

Additionally, the local branches of both the UCU and Unite are striking on the following dates: Thursday 25th May, Friday 26th May, Wednesday 28th June to Friday 30th June, Thursday 6th July, and Friday 7th July.

The boycott is part of continued industrial action protesting the College’s 2022/23 pay award. Imperial

College has imposed a pay award of 5.2%, less than half of the 10.5% requested by the Joint Trade Unions (JTU). “We are in a position where we feel the only way management will listen is by the credible, and legal, threat of withdrawing our labour via forms of strike action,” Imperial UCU wrote. In February, Imperial College Union (ICU) Council voted to support the UCU’s strike action, including the marking and assessment boycott, calling on the College to address the JTU’s concerns. Whilst ICU continues to support industrial action, Deputy President (Education) Jason Zheng wrote: “We are working very closely with the College to ensure that any effects of industrial action are mitigated as much as possible.”

Members of staff participating in the marking and assessment boycott will have 25% of pay withheld, in a decision made by the University Management Board to reflect the potential impact

of the boycott on students. “We will keep the impact of this action under review and reserve the right to increase the proportion deducted should the disruption to students increase,” wrote Professor Peter Haynes, Vice-Provost (Education and Student Experience). Imperial UCU slammed the measure, calling it “punitive, unfair, and disproportionate”.

Withheld salaries continue to be directed to the Student Support Fund. However, departments can claim for the costs of measures they implement to mitigate the impact of the industrial action. At present, it is unclear what action affected departments may take. Nevertheless, in an email to undergraduates in the Department of Physics, the Head of Department told students: “We have been preparing a plan to mitigate its effect if it does go ahead [and] have the backing of the College and its resources in implementing the plan.”

Changes to be made to terms of student loans in England

NEWS

► *Interest rates reduced, whilst repayment threshold lowered and term extended, in effort to make student finance fairer.*

Isabella Ward Co-Editor-in-Chief

Significant changes have been made to the interest rates and repayment schemes of student loans in England for new borrowers starting university courses in September 2023.

The loans’ interest rate will be set at the UK retail price index (RPI+0%) to account for inflation but ensure graduates do not pay, in real-terms, more than they borrowed. The student loan interest rate is currently set at RPI+3%, although it has been capped at 6.3% since September 2022 due to a background of high inflation and will be capped at 7.1% in June and August this year.

The repayment threshold has been reduced from £27,285 to £25,000 until 2026-27. Graduates will continue to pay back 9% of any earnings exceeding this threshold towards the debt.

The student loan repayment term will also be extended to 40 years, up from 30 years, in the hopes to increase the number of students paying back their loans in full.

This comes as part of a government strategy to make student finance more sustainable; the value of outstanding loans at the end of March 2021 reached £161 billion and is forecast to rise to half a trillion pounds by 2043.

Higher and Further Education Minister Michelle Donelan said: “We are delivering a fairer system for students, graduates, and taxpayers as well as future-proofing the student finance system.”

Have something you want to say? Felix welcomes you to share any information or opinion you have on these stories by emailing us at felix@imperial.ac.uk

SCIENCE & TECHNOLOGY

Dr Nicola Fox's stratospheric rise, from Imperial undergraduate to Head of Science at NASA

► *Fresh off the heels of the successful JUICE (JUperiter ICy moons Explorer) mission launch, and now well established in her role as NASA's Head of Science, we sat down with Dr Nicola Fox to discuss all things NASA, space travel, and her time here at Imperial.*

Mohammad Majlisi Science Writer
Taylor Pomfret Science Editor

Dr Fox is extremely personable, easy to speak to, as well as extremely nice. The idea that she is Head of Science, or, to use her full title, Associate Administrator for NASA's Science Mission Directorate, never really crossed our minds as we interviewed her, in the sense that as Physics undergrads, we would essentially be interviewing someone who was very much at the top of the Physics achievement ladder (which, as Imperial Physics students know, is a very, very big deal).

We start off by exchanging pleasantries, and discussing our Quantum Physics exam, which we were about to undertake the following morning. She smiles, telling us not to worry about Quantum Physics, and that she personally took the Practical courses (for the reader's benefit, Taylor is on the Theoretical Stream and so will not have to do any more labs in his degree, whilst Mohammad, will still be doing labs next year). There is a sardonic tone to this exchange, a sort of insider awareness that one can assume is the sort of feeling war veterans have when they meet each other years after the war.

A new dawn at NASA: the 'second space age'

M: Obviously at NASA, there are a lot of exciting missions going on, with Artemis launching in a few years, just recently with JUICE in collaboration with the College, and of course a lot of private companies launching their own shuttles and rockets. How does it feel being the Head of Science at NASA during what is essentially the second space age?

"It's really great. It's really exciting. And I agree with you, it feels a lot like a second space age. We're standing in the time before you know, it's right before

everything is going to start to reenergise. With the Artemis and the Mars missions, we just announced the crew that will fly on Artemis II and go around the Moon and have a sustained trip around space, and my job is really integrating the science into these missions – what do we want to do before we launch these missions, on the international space station, on the Orion capsule, what's inside of it. Even in Artemis I we had a lot of biology experiments that were inside, looking at how yeast and seeds and algae and fungi react to space. So yeah, it's very exciting."

T: The International Space Station, which is set to be retiring soon, is known for its experiments, such as the twins experiments with Mark and Scott Kelly, testing microgravity, and Bose-Einstein condensates.

There are tonnes of applications possible with research like this; is this something you really want to integrate, and are there particular disciplines you want to focus on with these missions?

"So, the Science Mission Directorate has five science divisions that it focuses on, obviously there is Planetary Science; Earth Science looking at our climate, studying disasters, wildfires, storms; Astrophysics; Heliophysics; which is my favourite, and the fifth one is Biological and Physical Sciences. They have the Cold Atom Lab operating at microgravity, super equipment, all the quantum stuff you guys did in your quantum physics exam – even stuff like illnesses and how you can cure them –

there is a biological tie into the medical field. Really, for us it is about taking advantage of every situation to do as much science as possible.

"As we do retire the ISS to our commercial partners, there are a number of companies building commercial space stations for us to use."

Lone star: trailblazing as a woman in STEM

M: Women in NASA have had a long and storied history, so how does it feel being a trailblazer – having been in the job for a few months after your first big mission?

"It feels really good. I'm really enjoying it. I sort of described it as equal parts excited and terrified."

Dr Fox is the second woman to hold the position as Head of Science, the first being astronaut Mary Cleave from 2005-2007. She is however, the first Brit.

"We have a really diverse culture here at NASA – there are a lot of opportunities for everybody, a lot of women in management positions. I was head of

Heliophysics, and the person acting for me right now is a woman. The head of Planetary [Sciences] is a woman, the head of Earth Sciences is a woman, the person acting for Biological and Physical Sciences is also a woman. We actually did a trip, and in a panel discussion with students, we realised all the management were women – and diverse women – it's

a cool place to be. The whole agency is like that – you'll find diverse groups of people in just about every field that you can check."

It's amazing to hear how diverse NASA is, and here at

Imperial, the Physics

Department hosts lots of inspiring women in the department – such as Michele Dougherty, Claudia de Rham, Marina Galand, Jess Wade, Joanna Haigh, Fay Dowker, and Jenny Nelson – to name a few.

Illustration by:
NATALIE YU



T: Our head of science is of course Michele Dougherty, principal investigator for the magnetometer on board JUICE. It would be really nice hearing about your

experiences back as a student here at Imperial – alongside some of the challenges you could have faced, and how perhaps society has improved on that even a t

NASA.

"When I was at Imperial, it was split 83% male and 17% female, and most of the women were in life sciences – the only department that was almost 50/50. Out of the 200 students studying physics just 30 or so [around 15%] were women. I have to say it was challenging – in most of the study groups (academic/personal tutorials), I was the only woman in the group. I did have one tutor – I won't name a name – who did make me feel like I didn't belong and was very much one of the "Can one of you clever lads give me an answer?" types, and I was just sitting there thinking – I guess I won't speak up then. But that was one tutor – I had really supportive people throughout. Michele actually was a postdoc when I was a postgraduate student – she'll tell you that, and she's great. She was already working on Cassini and Ulysses and playing vital roles. It was really great to see her taking up all those roles."

As of 2021/22, Imperial is now a lot more balanced in terms of gender, with a split of 40.4% women to 59.6% men, and the Physics department is currently at a male to female ratio of approximately 70:30. Whilst conditions with professors have improved, with professors being a lot more supportive, female students in the undergraduate cohorts have noticed the culture of a "boys' club" still exists in the student body, with female

students feeling the need to prove themselves and fight to be heard.

"More opportunities, and being told that STEM and science are not just for boys – you know that feeling that starts pretty early in schools where girls do this, and boys do that. It's not gone away completely, but I think that more people

can see themselves in those fields now."

Nicola herself was Women's Officer in the Union during her doctoral studies and has a long history herself of advocating for women here at Imperial. Currently, there have been

many more initiatives within Imperial and Physics itself, with the Women and Non-Binary Individuals in Physics Society established within Blackett today (check out their Twitter: @ic_wip).

M: Was NASA always something you wanted to do or was it equal parts opportunity and hard work?

"I'd say it was both! I always thought NASA was this mythical, inspiring, amazing thing – everything NASA did was cool – I didn't know there would be an opportunity for me to go work there. I was doing my PhD in Space and Atmospheric Physics – in 6M Huxley," [another laugh and knowing smile]. "Whilst I was at a conference with scientists at NASA, one asked me if I would be interested in applying for a postdoc at NASA, and I didn't even know that was an option. At the time I thought I was going to Leicester and work on the Cluster Mission. I did the application and got accepted. But once I got here, it's hard work. I work really hard. Overall, it's opportunity and hard work!"

Nicola herself was the first person in her family to attend university, with her

family coming from the Liverpool area, historically one of the most deprived areas in the United Kingdom. Coming from similar backgrounds, and even similar areas in Taylor's case, we agreed that there was a lot of perseverance involved in reaching the positions we had today. "I really thought NASA wouldn't have an opportunity for someone like me. I didn't know they had a postdoc programme that was open to somebody outside of the US, and so it was just not knowing the opportunity was there and taking it as soon as I got the opportunity."

T: Imperial has been a big collaborator with NASA. How does it feel to work with your alma mater, and to work with your roots, really, and oversee projects at Imperial?

"I'm really proud of Imperial, and the work they do, particularly the role they play in the work done at NASA, such as the partnership with JUICE. Up in Huxley 6M, they're building magnetometers, one of which will be going on the IMAP mission launching in 2025 – nine are going on a HelioSwarm mission in 2028. There's also the Solar Orbiter with a magnetometer coming from Imperial College – again – with instruments coming from UCL, led by a scientist graduating from the College [Chris Owen]. I'm really proud – Tim Horbury and I once shared an office as grad students – so proud to see these people go on and be successful."

Professor Tim Horbury is a member of the Space and Atmospheric Physics group, and the Principal Investigator on the Solar Orbiter Magnetometer, Science lead on IMAP and the HelioSwarm magnetometers, as well as a science team member on projects on the Parker Solar Probe.

Continued on page 6...

SCIENCE

“I was in the UK last autumn where I gave a seminar on the HelioSwarm mission for the Aeronautics students in the Mech Eng building which I couldn’t recognise, but as soon as I got into the theatre, I then realised nothing had changed! It’s really great to come back and see how successful Imperial continues to be, following the research that was done with COVID, calling into many seminars featuring Imperial’s contributions – it’s awesome to include Imperial with NASA’s portfolio that we’re working now.”

“THE MORE WE SEE WITH THE JAMES WEBB TELESCOPE, THE MORE I WANT TO SEE.

M: We know you did your dissertation here on geomagnetic storms, perhaps you could explain to Felix readers a bit about them?

“So, one of the things I like about geomagnetic storms is that it is a linked system – starting at the Sun’s core, radiating through the Sun, propagating through interplanetary medium and finally interact with our planet’s poles. It really is a matter of how susceptible we are to what’s going on in the Sun, particularly with regards to how technology is susceptible to space weather: for example, when your GPS isn’t accurate, or you get a power grid that goes down, or you lose satellite coverage – these are all possible side effects of geomagnetic storms relating to our use of technology. The more we become reliant on technology, the more susceptible we are to space weather, and the sun is waking up – the Sun is really active – it’s at its maximum phase: aurora have been seen in really unusual places way far south, or north in the southern hemisphere – equatorward – than we normally see. We need to predict and protect against space weather.”

T: A lot of our information is sourced from amateur scientists in the field – information about geomagnetic storms needn’t come from big players in the field. Should we keep data just

affiliated with scientists working for NASA – or should we open up to amateur researchers?

“NASA is a full open science agency – 2023 in the US is the year of open science. And so we have a programme, with a big push on open science. It’s not just about making the data available – if you don’t understand the data – who cares if it’s available or not you don’t know what the hell to do with it. It’s also about making the science behind it open, making the algorithms, so someone can reproduce results in a paper – we want to make sure all the code is open for people to use. There are some people who think this is wonderful, there are some people who really don’t like it – and would like to keep their data before their papers come out. It’s a culture shift, it allows the work of amateur astronomers to be recognised. There’s a big push for citizen science – with citizen science you don’t need to have a PhD, you don’t even need a degree, you just need to be curious and want to learn more.

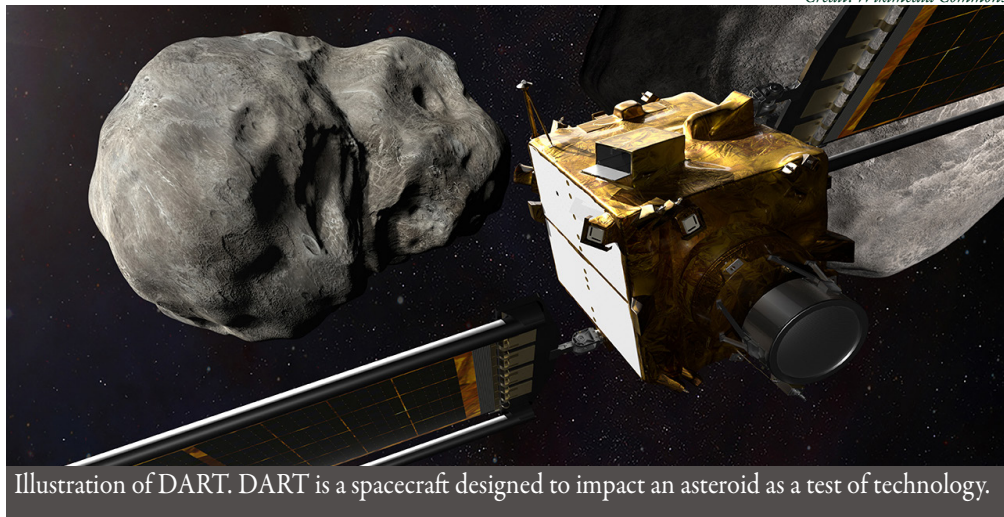
“THE PARTS I ENJOY THE MOST ABOUT MY JOB IS THE PUBLIC SPEAKING, THE INSPIRING, AND EDUCATING

“We also have another programme kicking off soon, the Helio Big Year – ties together the two eclipses here, the solar maximum, and the Parker Solar Probe’s closest approach to the Sun, and there’s a big emphasis on citizen science when we’re probing what we can learn too about the aurora. We actually had successes on what we have learned from citizen scientists – she discovered an auroral feature that no one has seen before, but just by taking pictures of it they saw what looked like a picket fence at the bottom of the aurora, no one had really noticed it before – that’s citizen science. The more we can open up, the more we lower boundaries for everybody to enjoy and share the joy of science.”

Quickfire questions

After learning about Nicola’s research in Heliophysics, we held a quickfire round – just to get to know the real Nicola Fox and see beyond the science.

- 1) Would you live in space?
“Yes.”
- 2) If you could send any celebrity into space, who would it be and why?
“Daniel Craig, so I can say I met James Bond.”
- 3) What’s your favourite NASA mission?
“Parker Solar Probe.”
- 4) Do you miss anything about the UK – if so, what is it you miss?
“Oh, mostly it’s food. I miss pork pies – pork pies and sausage rolls, there you go.” (Following on from that, Mohammad then asked if Nicola had ever had a cheeky Nando’s- she hadn’t but she does intend to do so next time she’s in the UK.)
- 5) Favourite book?
“Pale Blue Dot by Carl Sagan”
- 6) Hobbies?
“Love to build Lego, that’s how I de-stress. I really like to hang out with my friends and enjoy lots of karaoke with my daughter!” Nicola also has the Saturn V and ISS sets, her collection is quite prolific, “Do I have the Eiffel Tower – yes. Do I have the Titanic – yes. Does my son have every single Star Wars set? Yes!”
- 7) If you weren’t a physicist, what would you be and why?
“Teacher. The part I enjoy the most about my job is the public speaking, the inspiring and educating. So, if I wasn’t a physicist, I’d teach – teach Science.”
- 8) One word to describe your career?
“Unbelievable”
- 9) Does Dr Fox like Mohammad’s NASA hoodie?
“I do! I give you mad



Credit: Wikimedia Commons

props for that hoodie.”

10) Do aliens exist?
“So! I will say one of our core goals at NASA is to look and search for life. That doesn’t mean, to search for aliens in that sense – but we do have on the Webb telescope equipment that can look for signatures that could enable life to be sustained elsewhere. We have an astrobiology programme, Roman telescope, Webb’s predecessor, as part of the Habitable Worlds programme – which is literally looking for exoplanets that could sustain life. We’re also sending the Europa clipper mission to fly through plumes through Europa an to see what’s in those. Bringing back samples from an asteroid, which originates from the very beginning of our solar system when our planets were forming – we think it will have signatures in there which maybe will tell us why planets form, and why we can sustain water and therefore why we can sustain life.” Interestingly, it was neither a confirmation nor a denial.

11) As a space physicist – do you like sci-fi movies or do they just make you groan?

“Bit of both, it depends on the movie. There are some where I’m just like, ‘make it stop!’ But I’m a huge Star Trek fan.”

12) Favourite Star Trek series? “The Next Generation – which I know is not cool – you’re supposed to like the original one – but I grew up with The Next Generation.”

13) Finally, what’s the most exciting project we can expect to hear from NASA coming up?

“That’s like asking me to pick my favourite child! I’d like to say it’s a string of missions – the DART mission where we redirected the asteroid was a really inspirational mission – in September the OSIRIS-REX mission will be returning to Earth with samples of an asteroid, Bennu – which we can

Credit: Wikimedia Commons

SCIENCE

Credit: Wikimedia Commons

look at for many reasons: one looking for what are the building blocks for early planet formation, in the 22nd century Bennu will be on a close trajectory to Earth – so learning what the asteroid is like means that we can design a mission, if we needed to, to actually move the asteroid away. In October, we launched the Psyche mission, which is going out to another asteroid, which we think contains heavy metals. So, for me, some of the excitement is when you have groups of these missions that together do incredible things. Also have the Mars Sample return. Actually, going to Mars, we already have the Perseverance rover roving around on the Martian surface, taking samples, and leaving them for us to go back and collect them. We also have a helicopter on Mars, which is amazing. That’s step one of the sample return. It sounds easy, just to go and collect some samples from Mars – but it’s so hard – even launching from another planets – where there’s no launch pad or tower is tremendously difficult. The Mars sample return is a super exciting mission. We’ve also launched TEMPO, which will be looking at pollution, 24/7, over the North American continent, which aims to monitor how pollution changes during the day. I’m basically excited for all of them – but I certainly think bringing samples back from Mars is the most exciting mission this year.” (Never trust a physicist to be concise.)

Boldly going forwards: What’s next for NASA and Nicola?

T: Are there any missions that NASA could potentially develop to probe an understanding to unexplored regions of our Universe?

“The more we see with the James Webb Telescope, the more I want to see. With those images, you just think, my God, our entire solar system is like a tiny pixel in what I’m looking at in this image; and so, wanting to know more about other stellar systems and how those work is something I’m really excited in continuing to do.

“Continuing to explore space outside our solar system – we have the two Voyagers that are outside the heliosphere (influence of the Sun), and they’re in interstellar space. They’re 45 years old, they’re not designed to do that type of science on what protects us from interstellar space. The idea that

of designing and sending a mission that would travel fast into interstellar space, and really tell us what is out there, when we say we are protected by our sun and the heliosphere from interstellar space – what are we really protected from – what else is out there?

“I also think the poles of the Sun. That’s going to be a real key to understanding how a star works, Solar Orbiter is going out of the ecliptic plane so they can look down into the poles of the sun. Like Ulysses – which will be closer to the Sun, with images – so we can take in-situ data and investigate how the Sun is changing with the solar cycle and look at the polar regions of the Sun. Looking at the poles of Jupiter was transformational, with the Juno mission, alongside Cassini with Saturn-all these close up and in-situ experiments will be invaluable in understanding how our sun works.

“If you’re going to pick a planet, I’d really like to look at Neptune – much more. If

Mars helicopter, Ingenuity.

Credit: Wikimedia Commons

see those images of James Webb from Neptune, I was actually teary when they showed that image at the International Astronautical Congress in Paris. When you see these worlds so far away, naturally you want to know more about them – so I’d pick Neptune.”

T : How do you expect to see NASA change in the next 40 years – around 100 years on from the 1960s and the space race – in terms of management, international collaboration, and missions, as well as funding?

“I certainly see us embracing more of the relationships with industrial and commercial partners. I think it’s great



James Webb Space Telescope's first deep field image. The image shows the galaxy cluster SMACS 0723 as it appeared 4.6 billion years ago. This image is the telescope's first-full color image released. It was released July 11, 2022.

to see so many new players in the space industry, it opens us up

possibilities of doing Artemis to the sustained moon, then really amazing something one it takes a huge growing in our partnerships to enable us to do more science at NASA.”

T: And finally, what would your

advice be to someone like us, doing their undergrad about working with NASA, or even abroad?

“I’ll say, if you ever get the opportunity to work abroad – take it – because the experience is amazing. Working at NASA – there are lots of opportunities, there’s the NASA postdoc programme (what I did) which is open to non-US students.

A lot of universities here do a lot for NASA, much like Imperial, who are building instruments and supporting NASA. Even if you don’t work for the agency, it’s so easy to work in or around NASA. Certainly, in order to get these opportunities, if you get the chance to go to a big international conference, take it, and always give a presentation. Be enthusiastic, and you may meet your next employer standing in front of your poster. Take your opportunities and really enjoy it!”

ENVIRONMENT

Edited by: SIMRAN PATEL
MARIE MORI

ENVIRONMENT

Tales of Unsung Wilderness 2: jumping spiders, adorable yet lethal

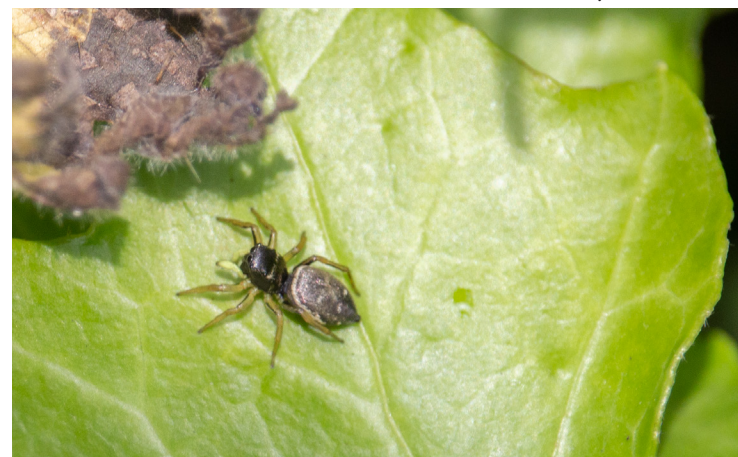
► We continue with the 'Tales of Unsung Wilderness' series, this time exploring the glory of jumping spiders.

Shreyas Kuchibhotla Environment Writer

If you're an arachnophobe, the combination of the words 'jumping' and 'spider' probably don't fill you with joy. As if the idea of the sneaking crawlers inhabiting basements, couches, and walls wasn't enough, the very thought of a spider that can jump likely fills you with dread. However, if you harbour a crippling fear of spiders, the first step to overcoming it is to interact with jumping spiders.

I'm not going to deny the reason these guys got their name — they can jump, and astonishingly well at that. However, the thing that most readily differentiates them from other spiders is their face. They do have eight eyes, but the first two, known as the anterior median eyes, are huge. This, coupled with a squarish head and inquisitive demeanour, makes these spiders some of the most endearing and engaging arthropods you can encounter. Most spiders move without any real sense of purpose. They either stay completely still when waiting for prey or avoiding detection, pace deliberately along bark, stone, or vegetation, or sprint away to glory. Jumpers, however, seem to think about their movements. They walk a few paces, look around a bit, stare upwards, play with their pedipalps (the little projections near their head), and then jump. If you've ever let one walk on your finger or even observed one outdoors, you just know there's something going on in that little brain of theirs. It has been proven through a whole host of studies that jumping spiders are indeed intelligent, and that their situational awareness and capacity to think is almost unparalleled among arthropods.

In tropical regions, there exists an extensive array of jumping spider species, and they are regular visitors to households, often hunting on the walls



A sun jumping spider (*Heliophanus sp.*) on a leaf at Regent's Canal, London.

Credit: Shreyas Kuchibhotla



A house jumping spider (*Pseudeuophrys lanigera*) on a wooden fence in Basingstoke, England.

Credit: Shreyas Kuchibhotla



A wall jumping spider (*Menemerus sp.*) with prey that I found on a light switch outside a restaurant in West Bengal.

Credit: Shreyas Kuchibhotla



A zebra spider (*Salticus scenicus*) strolling on a fence near the Serpentine Bar and Grill, Hyde Park.

Credit: Shreyas Kuchibhotla

of houses for flies and mosquitoes. I've even seen a wall jumping spider (*Menemerus sp.*) in Northeast India stalking prey on a light switch outside a restaurant toilet. However, in the UK, we only have about 40 species of jumping spiders, although that's not to say you can't find them easily. On warm, sunny days, you're likely to spot a surprising number of them, albeit representatives of only a few species.

The first is the house or fleecy jumping spider (*Pseudeuophrys lanigera*). While its scientific name is quite a mouthful, the spider itself is miniscule, with a total body length of up to four millimeters. They can be seen during mild weather, on wooden fences, walls, and ceilings, and are frequent inhabitants of houses.

Then there's the zebra spiders (*Salticus spp.*) of which Britain has three species. Only one (*Salticus scenicus*) is regularly associated with human habitation, and on a pleasant day they can be seen taking a stroll on suitable surfaces, including the omnipresent metal fencing in Hyde Park.

Perhaps the most striking jumpers in the UK are the sun jumping spiders (*Heliophanus spp.*) whose shiny (and tiny) black bodies contrast beautifully with their yellow legs and pedipalps. These are less likely to show up on artificial surfaces and tend to move around on bark and leaves. London is lucky to have several species, including two that are nationally scarce — the fencepost jumping spider (*Marpissa*

mucosa) and the oak jumping spider (*Ballus chalybeius*). I haven't been lucky enough to come across these as of yet, but I definitely hope one of my future articles will feature them!

The best part about jumping spiders is that you don't need to put in any extra effort to find them. If you're in the right place at the right time, you've got yourself one. So the next time you're cutting through a park to get home, or you happen to wander out into a garden on a sunny morning, look for these colourful characters wandering about. Even just five minutes of watching a jumping spider is an experience you will never forget.

Hammersmith and Fulham celebrates 'No Mow May'

► *Hammersmith and Fulham council stops mowing public green spaces every May – and the results are gorgeous.*

Simran Patel Environment Editor

Hammersmith and Fulham (H&F) is probably the most lived-in borough for Imperial students after leaving halls. Aside from the bustle of Hammersmith Broadway and the glamour of Westfield, the area has 50 green spaces, ranging from church gardens to the expansive Wormwood Scrubs. This month, these spaces were left to grow wild in support of the 'No Mow May' campaign.

The campaign, started by the charity Plantlife in 2019, encourages owners of green spaces not to mow them for the entire month of May. According to the Plantlife website, the UK has lost over 97% of its flower-rich meadows in the last 70 or so years. Not mowing green spaces allows such meadows to grow, attracting pollinating insects and therefore birds and hedgehogs. May is when grasses start to grow faster in response to warmer temperatures, and so is a common time for many households to get the lawnmower out of the shed. However, long grass provides moisture to the soil – benefitting soil invertebrates and the animals that feed on them.

One of the most common wildflowers observed in the unmowed gardens of H&F is the dandelion. They are usually considered weeds because of their fast growth, high seed production, and tap roots that regrow after the visible parts of the plant are removed. Despite that, it's difficult not to love the bright yellow flowers that have adorned Fulham's streets this month, and their fluffy seed heads full of superstition and childhood memories. Dandelions provide a wide range of bees with nectar and pollen, because their open flower shape is accessible to many species. In fact, dandelions provide 9% of the pollen and 37% of the nectar from a typical lawn.

Buttercups and daisies flourish even more during 'No Mow May' than they do normally. Daisies provide food for solitary bees and beetles, especially where



Credit: Simran Patel



Credit: Simran Patel



Credit: Simran Patel



Credit: Simran Patel

Top to bottom: Buttercups and daisies along Lillie Road, dandelions and forget-me-nots in Bayonne Park, cow parsley in Margravine Cemetery, and bluebells in Fulham Cemetery.

no other flowers can be found. Buttercups can attract bees, butterflies and moths to unmowed lawns – but pet owners should beware because buttercups are toxic to cats and dogs. Another common sight during 'No Mow May' is geraniums, whose nectar-rich magenta flowers are visited by buff-tailed and white-tailed bumblebees, among others. Pale blue forget-me-nots, which can also attract bees and butterflies, are also found in H&F's green spaces and community gardens in May. And these are just the commonly found plants! A citizen science survey in 2021 showed that gardeners who did not mow their lawn found over 250 wild plant species in their garden – including wild garlic, wild strawberry, and many types of orchids.

Margravine and Fulham cemeteries also put on a show during 'No Mow May', as wildflowers coexist with flowers planted in memory of loved ones. Bluebells can be spotted in both cemeteries – though the native species feeds hoverflies, woodland

butterflies, and bees, the Spanish species is outcompeting and hybridising with it. The cow parsley in Margravine Cemetery looked like clouds on stems – attracting butterflies, hoverflies, and sometimes rabbits. So although the biodiversity crisis may seem dire, less may be more when it comes to mowing green spaces.

As spaces like the cemeteries have been thriving this month, now is a good time to assess what else the H&F council is doing to help solve the climate and biodiversity crises. The council declared a climate and ecological emergency in 2019, and aims to make its operations net-zero by 2030. All its council buildings are run on renewable electricity, and heat pumps are being installed in four non-domestic and three residential sites. H&F is home to London's first 'tiny forest', a dense woodland that is part of an initiative run by Earthwatch Europe. There are now two more such volunteer-run forests in the borough. Sustainable urban drainage systems have been installed in the White City and Queen Caroline estates.

The council's 2030 Climate and Ecology Strategy addresses five challenges – homes and buildings, travel, consumption, ecology, and adapting to a changing climate – but not many of their targets are quantified. Although clear efforts have been made to improve biodiversity and reduce carbon emissions in H&F, more action will be required from individuals and governments to truly tackle these five challenges.

Credit: Simran Patel



COMMENT

Imperial must raise staff wages in line with inflation

► *The Joint Trade Unions write to inform students about the reasoning behind the ongoing strikes to increase staff wages.*

The Joint Trade Unions (UCU, UNISON & Unite) at Imperial College London

The current UK cost-of-living crisis is affecting us all. With general inflation at around 10% for the past two years and augmented hikes on universal needs such as food, rent, bills, mortgage rates, and fuel, people and companies are feeling severe financial pressure. One effect of the crisis concerns workers' income – if organisations do not increase their workers' wages proportionally in line with the increased cost of living, then they become effectively poorer and less able to live their lives with dignity. Sadly, this is often the case, and workers in various key sectors across the nation such as transport workers, NHS staff, teachers, and even lawyers have been staging strike action in protest over paltry rises that do little to protect the real value of their salary.

The higher education sector has not bucked this trend, and staff in over 150 institutes are in formal dispute with the University & Colleges' Employers Association (UCEA) over a national pay offer to university staff of 5% for this year. It may be a surprise for readers to hear that Imperial College is not part of this national dispute.

Imperial is a somewhat unique UK university, with its STEMMB (science, technology, engineering, mathematics, medicine, business) focus and prime central London location immediately setting it apart. There are also several unusual features of its operational structure; for example, the College does not belong to the large federation of institutes forming the University of London, and its Student Union is disaffiliated from the National Union of Students.

Another important feature is that

Imperial withdrew from national pay bargaining with UCEA nearly 20 years ago, and has since conducted local pay bargaining, meaning that unlike most UK higher education institutes, it has autonomy over its decisions on annual pay awards, in negotiation with the local Joint Trade Union (J TU) branches. Usually, the J TU and the senior management team (SMT) are able reach an annual agreement, but last year the SMT's imposition of a 3.3% pay offer without J TU agreement was simply too much for staff to bear — a 3% pay award with inflation at over 10% is essentially a 7% pay cut. This meagre offering was particularly jarring as we moved out of the pandemic, where the labours of staff had been absolutely extraordinary and the subject of near-universal internal and external praise, with the College loudly flaunting its Times & Sunday Time University of the Year award for 2021. Members of all three trade unions voted to enter into a formal dispute with the College in September 2022. Sadly, this dispute has not been resolved, and the problem has only become more pronounced.

Bluntly put, Imperial College is rolling in cash. With annual income and expenditure in excess of £1 billion, and an average annual surplus of approximately £10 million (with a record surplus of £162 million for 2020-21) it is one of the wealthiest universities in the UK, according to the College's annual report from 2022. Much of the money is put to undeniably good use, with some world class buildings, research, and teaching facilities, but some of the distribution of resources is more contentious, such as investment in real estate and extraordinary remuneration packages for the top 10 earners in the College. Of course, Imperial has also been hit with increased operational costs – this year's

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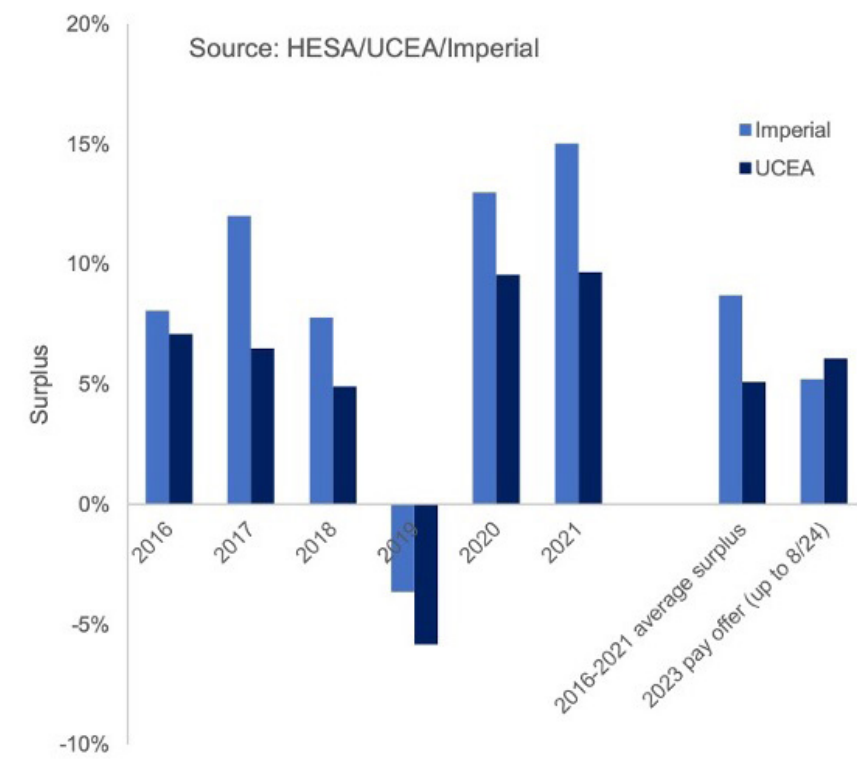
THE COLLEGE STILL HAS THE FINANCIAL STRENGTH TO PROPERLY PROTECT ITS STAFF WITH AN ANNUAL PAY AWARD THAT IS IN LINE WITH INFLATION

energy bill will be an eye-watering £40 million higher than previous years, but the fact is that the College still has the financial strength to properly protect its staff with an annual pay award that is in line with inflation.

It is curious that President Hugh Brady agrees with the position that the College should increase its staff pay in line with inflation. In a 2019

interview with the Bristol student newspaper Epigram the then VC of Bristol Professor Brady lamented that his former employer could not award a pay deal in line with inflation as it is part of national bargaining, and stated that had Bristol possessed the autonomy to award pay in line with inflation it would do just that. Now Professor Brady is in a position to honour this principle for

Credit: HESA/UCEA/Imperial



Imperial's annual surplus as a percentage of income is consistently higher than the majority of the university sector, yet their proportional annual pay offer is lower.

staff at Imperial College.

In this year's pay award cycle, the J TU put in a pay claim of 10.5% – an amount which we show is clearly affordable by the College, and is only attempting to protect the value of staff pay against the current inflation rate. As part of our research into the pay claim, we surveyed staff on how the cost-of-living crisis was affecting them. The responses, some of which can be read in the full claim, were both heart-rending and alarming, with people providing stories of acute hardship, negatively-impacted work lives, and decisions to leave the College for financial reasons.

Sadly, the SMT have not been cooperating to the level one might expect, and, astonishingly, have not even seemed to be taking things seriously until very recently. Despite a promise to the J TU to bring the negotiations forward to better protect staff salaries, the SMT sat on the pay claim for six weeks before announcing their first offer. As well as the headline 5.2% offer being far from acceptable to staff, as it effectively means a 5% pay cut, the SMT proffered no real counter-arguments or refutations of the J TU's position, and the offer contained several basic mistakes, with copy-and-pasted tables with the wrong dates, and significant arithmetical errors on

basic percentages for salary scales. It felt extraordinary that managers in such a powerful position could put their name to something that hadn't even been

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STAFF AT IMPERIAL COLLEGE KNOW THAT MANAGEMENT WILL NOT LISTEN TO ARGUMENTS BASED ON LOGIC AND COMPASSION

proofread.

The J TU did respond with a compromised counterproposal, but the second, so called 'full and final offer' from the SMT on April 28th was not much more than a rehashing of their original offer with their own mistakes corrected.

In 2020, in the midst of the ongoing bullying scandal, the College launched its 'Values and Behaviours' project,

promoting five key virtues that would purportedly define the university and the actions of all its staff. The righteous traits of respect, collaboration, integrity, innovation, and excellence have since been written into every Imperial policy document, found their way into staff email signatures, and are the subject of regular Twitter broadcasts from the College account. Sadly, it is difficult to see how any of these traits have been adhered to by College management in the recent pay negotiations.

Nobody wants industrial action. But the staff at Imperial College know that management will not listen to arguments based on logic and compassion. They are role playing in one of the worst aspects of end-stage capitalism and modern business development, namely the marketisation of higher education, where staff are treated as a cost to be managed. We are in a position where we feel the only way management will listen is through the credible, and legal, threat of withdrawing our labour via forms of strike action. Members of all three trade unions have voted for this, for the first time in Imperial College's rich and varied history. The UCU have commenced their marking and assessment boycott (MAB) and there are five days of strike action declared during this term.

If we do not do this, the College will continue to erode the value of pay and conditions at Imperial. They purport to care about students but are already taking steps to devalue your degree as a result of the marking and assessment boycott (e.g. by giving technical marking duties to graduate students, and allowing students to progress on half the usual credit for the year) instead of concentrating on ending the dispute.

We are not just doing this to protect our pay this year, but for the more global and fundamental purpose of protecting our university from becoming yet another business, and ensuring the profession is one that aspiring academics will still want to join. This affects us all.

There are already signs that things are working. All three unions' memberships solidly rejected this year's pay offer and the most recent formal response and meeting with the J TU have provided indications that management are perhaps starting to react. It is highly lamentable that we are in this clearly avoidable position, but there is now a glimmer of hope.

You can help by emailing the President and Provost and asking them to pay their staff fairly.

Credit: Felix



Unite and UCU members on strike over pay earlier this year.

MUSIC
MUSIC

Gig Review

Biig Piig's Biig Bubblegum 2023 Tour

Irish neo-soul singer, Biig Piig brings her unique brand of bedroom pop to OZ Hall, in Melkweg, Amsterdam.

John Estopen Music Writer

It all began with a lil' day trip to Amsterdam Zuid, where I met up with the boyfriend and his friends, had some pancakes, and went to a flea market (where there were no fleas?!). We then headed to Melkweg. For the uninitiated, this translates to 'Milkyway', which is an appropriate name for a former dairy factory – how cool is that?

We saw the sign "Biig Piig - Sold Out" as we walked in. This was about to be a great night. We shoved our coats into some lockers and entered the concert space.

It was well-ventilated, although a tad smaller than I expected, which could just be a side effect of never wearing my glasses (I'm short-sighted). We grabbed some drinks and it was all setting up to be a great night. As this was happening, the opening act started jamming. It was Anna-Rose Clayton, a self-proclaimed 'weirdo that loves writing songs'.

She captivated the audience with her sheer energy, despite some kinda weird lyrics. At one point I believe she sang something about Obama? But I'm willing to admit I might be wrong as the vodka-lemonade



which I had consumed was particularly strong (and a double or more). I was a big fan of the instrumentals from Clayton. The drums felt like they could've been pre-programmed, but it was just the drummer playing fantastically. Whilst the lyrics could be improved upon, Clayton sure made up for it with her band's musical virtuosity and her energy – she even came down to the pit and went apeshit with us whilst her band jammed out. For a taste of her music check out 'nEw Me'!

Next up, the gig I'd been so looking forward to. Ever since I saw her opening for Glass Animals a couple of years ago, I knew Jessica Smyth, more commonly known as Biig Piig, was one to watch.

Her band entered the stage: a bassist/keys/saxophonist, a keys/guitarist, and a drummer. (apologies for not remembering the names of Jess's bandmates – I blame getting hit in the head while we moshed – but more on that later). Their first song, 'This Is What They Meant', describes the feeling of experiencing the city through someone else's eyes; a groovy bop that got everyone dancing almost immediately. One thing I did notice was that she was particularly jumpy. Not in the easily-startled way, but the jumping up and down way. She had even more energy than her opener and it was honestly really cool to see.

They played through a particularly funky slew of songs, which reminded Smyth of her youth and the difference in her outlook at the time she wrote these somewhat older songs. Although expected, she punctuated multiple songs with bars in español and reminded me how versatile her lyricism can be. 'Roses and Gold' had a particularly thumping bass line, perfect for her guitarist to absolutely spit all over with a solo.

The middle section consisted of a more indie/bedroom pop feel, which was less energetic but more intimate than the previous songs. Even if I wasn't as big a fan of this, it was still a great part of her discography to see live. 'Oh No' was particularly enjoyable with its

Edited by: JOE RIORDAN
TARA PALCHAUDHURI



View online here!

Don't Miss the Gig

An Evening with Gabriels @ Union Chapel,
Friday 7pm 25th August

Gabriels, in their nascency, took us to smoky jazz bars with sinister brass and string sections that backgropped Jacob Lusk's soulful vocals. Their debut album, *Angels & Queens*, however inclines towards a nu-gospel sounds that sways between pop-inspired singing and disco funk rhythms. All this provokes one question: how good would they sound unplugged in a gospel church? Don't miss a chance to find out.

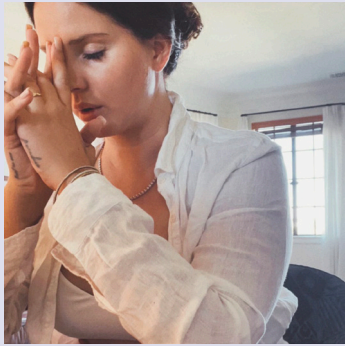


Single of the Week

'Say Yes to Heaven' by

Lana Del Rey

Lana Del Rey's most recent single, 'Say Yes to Heaven' features the familiar fuzzy guitar riffs layered over muted drums – even a reference to wearing a red dress. However, Del Rey's flavour of romance has always been more complicated than her songs' instrumental arrangements let on. While her actions are antithetical to those of her lover in the lyrics, the chorus of the single still describes that almost unnerving devotion to love that Del Rey has become so good at conveying.



stripped back nature, allowing Biig Piig's voice to carry the song.

With every middle, there is, of course, an end. And the end was bloody great. Biigus Piigus picks it up again with 'Picking Up' from her new album. It starts off all mellow, and gradually turns up bit by bit until the pre-chorus, where a chopped guitar sample enters and fully brings up the energy. At this point we were all jumping just like she was. She follows this up with 'Switch' and 'FUN' – both heavily influenced by Jungle – and boosts the energy in the room to new heights. You could even say she switch-ed it up. If you've ever listened to any of Jess' discography, you would probably never expect to mosh to it. But it was so hope we all eventually just got into it and did. Amsterdam moshing was pretty fucking good, despite getting elbowed on the head a couple of times. I blame this on the fact that I'm a short, short man.

MUSIC

That whole final section was so good, and she ended with 'Feels Right', another groovy song with a catchy baseline. This was one of the songs I remember from her opening in Ally Pally, but, hey, it was even better than the first time. The energy at this point was through the roof, and I was overheating and out of breath (but somehow still standing). She exited at this point, but everyone was still so crazy.

Okay, I lied, she hadn't finished just yet. 'Kerosene', also from her debut album, was her 'for real' closer. As

all big oil fans know, kerosene is a very good (crowd) fuel. This song exudes the feeling of want and lust for a person, right there, and right now. Again, was not expecting to mosh, but here we were absolutely going through it.

All in all, Biig Piig had blown my expectations away. It was pretty dope to see just how far she's come in her stage presence and music. It's so cool to see an artist like herself come into her own, and I'm really looking forward to see what she fills her set with next time I see

Album Review

Gorillaz Release Cracker Island

The soundtrack to your most uneventful family holiday.

Matija Conic Music Writer

In 2020, Gorillaz infused a lot of fans with new optimism for the fictional band's future with *Song Machine, Season One: Strange Timez* after a set of bland and disappointing projects, like *Humanz* and *The Now-Now*. The record gave me hope that Damon Albarn might still not be past his creative prime, as he blessed us with a seriously impressive set of bangers with exceptionally well-picked features and some lovely, cartoonish Gorillaz beats. The marketing for *Cracker Island* hinted that the new album will be a return to form – a curious conceptual piece with oddly familiar aesthetics to their seminal record, *Plastic Beach*, as opposed to the array of disconnected songs that *Song Machine* gave us. What's not to be excited about?

The title track was the first one to drop, which set my expectations quite high. 'Cracker Island' is a synth-pop rager with a captivating, although repetitive, beat, layered beautifully with Thundercat's dreamy vocals and Albarn's singing. Although the novelty does wear off after a while and the cut feels like it overstays its welcome a bit, I was nonetheless really impressed. Another single I was thoroughly enamoured by was 'Skinny Ape', which has some stunningly beautiful production, with pretty acoustic guitars and some super fun synths that suddenly disintegrate into this raging, distorted, and exhilarating thunderstorm near the end. Though the build up to the incredibly satisfying finish does drag on, I still adore nearly every second of the track.

The other singles, however, I was left feeling fairly indifferent towards. 'New Gold', which I initially liked, I think I ended up spinning two or three times before I got really bored with what the track had to offer. The prospect of a Tame Impala feature sounded exciting, but I was hoping for something bolder than

a mid-sounding deep cut from 'The Slow Rush', with Bootie Brown's verse being dull and uninspired as hell. 'Baby Queen' sounded a bit better, but it was still rather forgettable and sleepy. If you asked me to recall its hook, I would probably fail every time. 'Silent Running' was arguably the largest, most commercially-targeted drop, but I found it rather

annoying from the get-go due to the incredibly basic synth production and Albarn's slightly obnoxious vocal delivery. It felt like he was attempting to expand his singing range far above what his voice can handle, with the end product sounding awkward and unpleasant. He's really no David Bowie and he seems to be strikingly unaware of that.

Still, given my positive feelings towards 'Cracker Island' and 'Skinny Ape', I went into the project with an open mind. Unfortunately, what I got was exactly what I expected the worst case scenario to sound like. Boring, bland and lazy synth pop with little to no character or replay value. I'll begin by praising one deep cut that I actually enjoyed a fair amount, which is the Stevie Nicks feature titled 'Oil'. The track is not too out of left-field or creative in what it's trying to do, but I found the synth lines to be quite engaging and pleasant, while I enjoyed Stevie's vocals, as well as the way they were edited and harmonised with Albarn's. The remainder of the track list, however, made me feel like I'm at the most uneventful summer vacation of my life, probably with my 80-year-old grandparents, waiting for the 14 days to pass by until I can go home. 'The Tired Influencer' has redeeming qualities, as I do enjoy moments on it, but it still just feels like listening to a Bikini Bottom transition cut from Spongebob over and over again while being half asleep. 'Tarentula' is even more annoying than 'Silent Running' in terms of Albarn imagining to be a vocalist extraordinaire, with his singing of "I need you, I need you, I need you, I need youuuu..." making me cringe really hard and press skip immediately every time. The beat reminds me of airplane music that plays after you land while the airport staff wishes you a pleasant stay in an exceptionally depressing Eastern European

her live.

P.S. I ended up getting the set list - take a look at the Spotify playlist picture. If I look mildly concerning in the photo it's because the person taking it told me to pretend I was taking a prison mug shot.



city. And, as a Serbian, trust me – the airplane landing soundtracks are generic and mind-numbing.

'Tormenta' may be my least favourite moment, as I actually actively dislike it as opposed to feeling indifferent to its presence in the track list. It strikes me as Damon Albarn making an obnoxious reggaeton track purely so he can have Bad Bunny on it rather than actually wanting to make a diversion in that direction and choosing Bad Bunny as a suitable feature to complement that. The closer 'Possession Island' is quite underwhelming too, with some inoffensive but slightly boring piano melodies and a sax section near the end that is not really fitting or in any way a cathartic way to wrap the album up.

If I had to summarise it, *Cracker Island* has the same vibe of my iPhone alarm tone after I've pressed snooze on it seven times and contextualised all the noises coming from it within some weird, oddly non-specific dream narrative that I instantly forget after I wake up. I could also see it playing in a Primark changing room inside the Gorillaz universe, while *Demon Days* and *Plastic Beach* are being blasted on full volume in all the cool venues and bars across the city. Two or three bangers and straight skips in-between. Whilst I do still hold hope for Albarn's creative output going forward, this may unfortunately be an indication that he's running out of ideas, as I don't think I can listen through another uninspired concept album like this. Hopefully, *Song Machine, Season Two* doesn't disappoint.



FILM & TV

Edited by: JONAH HEWETT
MIKE BUZADJI

FILM & TV

Television Review

His Dark Materials

► Books Editor Zanna Buckland reviews the BBC adaptation of Philip Pullman's immortal trilogy.

Zanna Buckland Co-Editor-in-Chief

It's tricky to write an unpolarised TV review, and even trickier when the TV show in question is an exceptional one. The allegorical *His Dark Materials* trilogy is fantastically philosophical and a deep study of humanity, and being an avid fan of the series, it took me some time to come round to the idea of seeing it fully realised on screen.

If you've read Philip Pullman's novels, you'll know that attempting to recreate the tale he concocted – and its many endless worlds – is a staggering task. Perhaps one of the reasons why the 2007 movie version of his first book, *The Golden Compass* (*Northern Lights*), did so poorly is the difficulty of translating all the key plot points and nuances of the books in a way that will appease diehard fans, while still making it marketable to wider audiences. But the BBC's TV adaptation of Pullman's trilogy makes an excellent case for how TV shows might be the only way to truly do a book justice. Each novel in the series fits neatly into a season of the show; purposefully touching on every important plot point without wasting time on unnecessary scenes.

I can't imagine a more artistic and thoughtful rendering than this one, and it's an exceedingly rare example of a TV series staying true to its literary roots. Where so many other cinematic adaptations of books fall disappointingly short, the *His Dark Materials* series brings the novels to technicolour life, making you feel as though you're living and breathing the adventure. It begins in alternate-universe Oxford, but soon takes viewers far beyond the confines of the city, and though it is very clearly a different realm to our own, there is a realism to the scenes that makes the story almost tangible.

The cast is extraordinarily compelling; almost every actor in the series could just as easily pass for their character as for themselves, and some even more so. Dafne Keen and Amir Wilson are incredible as main characters Lyra and Will, and the supporting cast is filled with a host of tried-and-tested actors. James McAvoy, Ruth Wilson, Lin-Manuel Miranda, Will Keen, Anne-Marie Duff, and the late



Lyra Belacqua and friends Iorek Byrnison (a talking armoured polar bear - not a daemon!) and Roger (in the background).

Helen McCrory to name a few; though the list could go on.

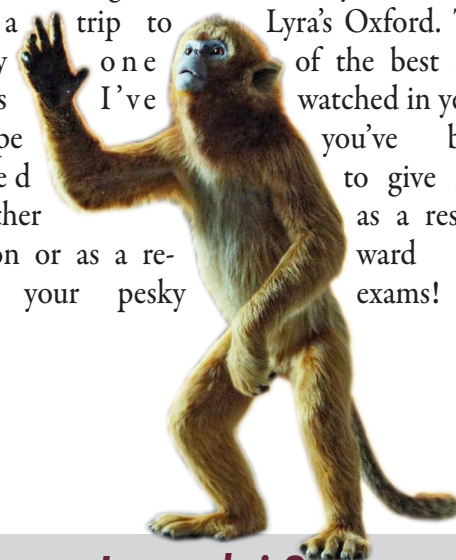
A few of these actors aren't identifiable by face, as they play the manifestations of humans' souls in Lyra's world – their 'daemons'. You can see them scattered around this page, appearing as animals that embody the core qualities of their respective humans. The bond between these daemons and their people is an important element in the story, but I'll leave it up to you to find out exactly why.

Always essential to a show's success is its musical score, and this one's is no exception; the opening theme alone is hauntingly dramatic. Any decent score should complement what's happening on-screen and also be strikingly noticeable during significant plot points, and Lorne Balfe's compositions do exactly that.

All too often, a show's cast and crew are let down by a terrible script, particularly when it comes to translating literature to the big (or small) screen. That wasn't the case here, and the script stayed so true to the novels as to actually use lines pulled straight off the pages, further cementing it as a must-watch for fans of the books. The ending of the trilogy is similarly honoured, and perfectly concluded in the finale of the show, leaving only any loose ends that were also left by Pullman himself.

Although containing elements that could potentially be confusing for viewers who haven't read the novels,

I trust that Pullman's deft world-building has seeped into the series, making it accessible to anyone interested in taking a trip to Lyra's Oxford. This is definitely one of the best new TV shows I've watched in years, and I hope you've been convinced to give it a chance; either as a respite from revision or as a reward for completing your pesky exams!



Where can I watch it?

His Dark Materials is available to watch now for free on BBC iPlayer!

(if you have a TV licence, or if you don't you can use mine, dw)

BBC

iPLAYER

Seasons: 3

Episodes: 23

Cristela Alonzo
[Cars 3]
voices
Hester,
this hare
daemon.



FOOD & TRAVEL

Bagels, coffee, Central Park >>> MoMa

► Our Travel editor Charlotte visited the Big Apple for a short trip with her family and shares her event-filled week below.

Charlotte Probstel Travel Editor

“Streetlights, big dreams, all lookin’ pretty” is what played through my head whilst running past Times Square to 43rd street, before turning right towards the Harry Potter play. I lost track of the time choosing between two covers for my Apple pen in the BT21 store. The play started at 2pm; I arrived 1:55pm.

Thursday night, arrival in Newark, the air thick and warm for early April and the air – smelling just like New Jersey – and taking an Uber to Columbus Circle, the bottom left corner of Central Park (do not take the overpriced regular taxis from the airport).

Friday, a walk around Central Park while the sun shines down on the little patch of green in the big concrete jungle. Arriving at the Edge (a viewpoint in Hudson Yard), the view of the city is like your first bite into a freshly baked bagel with dollops of cream cheese. Waiting an hour in line is kind of worth it. We even saw people scaling down the side of the building. At night we go to see the Neil Diamond Musical – a show for the older generations – during which jetlag gets the better of both me and my brother.

Saturday, the Apple store and American Museum of Natural History called. I am embarrassed to admit that my first thought was ‘Hey, this looks like How I Met Your Mother’. Many rooms are darkened to better see the lit-up exhibitions of colorful, furry, and statuesque animals; which, when seen up close, are even more magnificent than you would imagine. There is also an exhibition titled ‘Extinct and Endangered’ full of high-definition close-ups of mosquitoes, bees and wasps, grasshoppers, and other insects, all taken by photographer Levon Biss. As a biomedical student, I enjoy these more than I care to admit, regretting not buying a copy of the pictures (albeit

overpriced ones) at the gift shop.

Sunday – Easter brunch and a walk down The Village to a cute little Italian restaurant, where we spot *Game of Thrones* actress Sophie Turner and her singer husband, Joe Jonas. Conversation fills the night.

has interactive spy-like tasks such as sliding past lasers and decoding encrypted messages. I particularly enjoy the story of Robert Hanssen, the FBI spy who sold secrets to the KGB for almost two decades. Post-operation, we take a walk around Central Park with our friend Lisa and her adorable 2.5-kg dog Bella. We enjoy our slightly expensive

Credit: DALL-E



AI-generated image of a bunny enjoying a cup of coffee overlooking a park.

Monday – visiting the ‘Galerie’ to see The Kiss by Gustav Klimt, only to find out it has been shipped back to Austria. Nevertheless, we instead get to see his Portrait 1 of Adele Bauer. I then steal my brother to visit MoMA – a disappointing experience unfortunately – before we travel back downtown into the Village for Indian night. My great-aunt, epic as she is, already has a cocktail in her hand when we take a seat.

Tuesday – the ‘SpyScape’ museum

Starbucks coffees and dive into more conversation before taking an Uber back to the airport and flying home.

The schedule was packed, but everyone had time in between family brunches, breakfasts, and dinners to do their own things. I chose science and art museums while my sister spent three days at the Met. She thought we were flying back on Tuesday morning, so on Monday evening went “WHAAAAAT? I have a whole other day in New York? I

Credit: Charlotte Probstel



View from ‘The Edge’.

was rushing round the Met today... I could have taken my time and gone tomorrow.” Some of us decided to walk through town, others spent time on Ellis Island.

In a group of 13 people, various subgroups tend to form. But at every meal, we sat next to someone new. At the Indian restaurant, my great-uncle – a surgeon – and I discussed the brain and he explained some brain and eye diseases. At the Italian restaurant, I sat beside my great-cousin’s husband, with whom I discussed the competitive and social culture within team sports. At brunch, my great-aunt taught me about New York’s social geography. At breakfast, my uncle talked about the books his company publishes. “If I were to write a book, can I send it to you?” I asked, twice. “Send it to your aunt,” he replied, both times.

New York was filled with iconic landmarks. The Empire Hotel, owned by Chuck Bass in *Gossip Girl*. Firehouse, Hook, and Ladder Company 8 from *Ghostbusters*, The Plaza Hotel from *The Great Gatsby*, and, of course, Tiffany and Co. from the iconic *Breakfast at Tiffany’s*.

When New York sleeps, it always

Credit: Charlotte Probstel



View onto the city from our hotel room.

Credit: Charlotte Probstel



The trees in Central Park were in full bloom – the entire park was adorned similarly to this.

Credit: Charlotte Probstel



The skyscrapers towered over the trees.



Credit: Notebooks & Honey, Pinterest

dreams. It wakes up not only in the morning but in the afternoon and evening, and in every room of every building of every street, some story is happening.

Until next time,
Charlotte (and Bella!)

Bella and I

