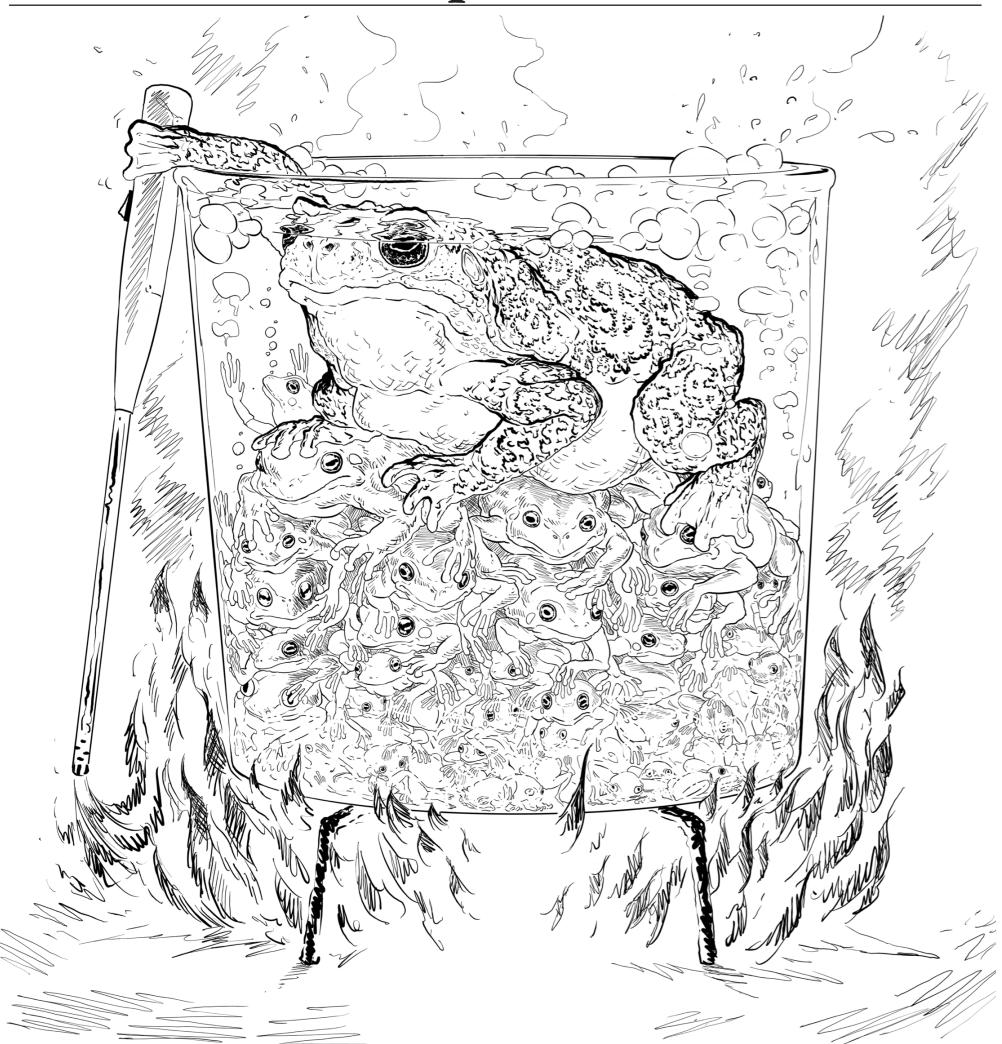


### Climate Crisis: hope in the face of doom



#### **EDITORIAL**

#### This edition was produced thanks to the work of

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#### **JOIN THE TEAM!**

And our numerous

contributors

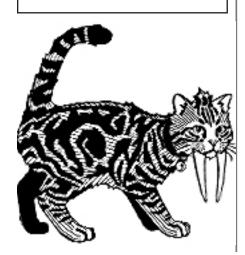
We're deeply sad to say that Felix suffered badly during the pandemic

With everything going on remotely, contributions fell and the paper became a shell of its former self

The silver lining is that the only way is up from here!

Felix has produced some of the highest quality student journalism in the UK over the years, and we want you to help us do more.

Email felix@ic.ac.uk to get involved



#### The Felix Editor on

### College and the Climate

Hello, and welcome to Felix. a sustainable way". Alas, the days of Before we enter into this inherently depressing issue on climate change, I would like to clarify something:

we are not a climate activism paper. Felix reports on anything and everything Collegerelated, and supports the different sections on all topics with an equal amount of vigour. Climate change is just very important, and an issue we as a paper feel

very strongly about. Also, in light of the state of the planet, I believe it's only right to look at our beloved world-leading institution's impact. Spoiler, it's not looking good.

The group People and Planet is a student network which has ranked all UK higher education institutions on sustainability across a number of criteria, and given each a grade, from First, 2:1 etc to Fail. Imperial College snatches an easy Fail on this list, ranking 130th out of 154 institutions. Going into the metrics used to award this grade highlights particularly where the College falls short. Policy, Investment, Engagement and Water Reduction all clock in at 0%. Policy?! A zero?! Nonsense! The College's website outlines its robust policies that will help it achieve its sustainability goals, including mandates such as "ensure that all teaching... is carried out in pouring oil onto endangered animals during lectures are over. This page also mentions that "students are equipped with sustainability

> skills and knowledge for the future". You know? Those mandatory Sustainability Skills classes the College makes sure everyone goes through during their time here? The ones where they have a

crack at explaining whatever "sustainability skills" means and then instil them in us? The vagueness makes Elizabeth Holmes look like a pedant.

On a more serious note, the College does provide a vast array of courses relating to sustainability, and has a flagship Environmental Policy department whose expertise influence the UK government and the wider world. Despite this, they don't employ a single person full-time to oversee the College's sustainability strategy. In 2020 the Sustainability Strategy Advisory Group was formed, adding another leaf to the complex tree of boards and committees that drive the College forward. It is no member of the Group's primary jobs to oversee sustainability. Some people, including Union Deputy Presidents, see this juxtaposition between courses offered institutional behaviour as wildly hypocritical. Wouldn't you agree?

### Statement of Intent

We here at Felix believe that it is always in the interest of the students to 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 it in our pages.

Signed by Sam Lovatt Editor-in Chief

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### Write for Felix!

Felix is a longstanding institution which has produced some of the finest student journalism in the country, won awards and broken stories that end up in national news.

Felix provides an outlet for all students and staff to review, read about and report on whatever they want. Anything you feel passionate about can be transcribed, honed to perfection with the help of our Section Editors and published both in print and on the website.

Writing on what you're passionate about is the best way to deepen your interest and expand your horizons (also, if we're honest about incentives, a lot of the sections get you free tickets and it looks good on the CV).

If you're interested in writing for us, get in touch with any of the Section Editors at their submissions inbox (e.g. if you want to write for Arts, email arts.felix@imperial.ac.uk), or the Editor-in-Chief at felix@imperial.ac.uk.

We need writers, editors, copy-editors, illustrators, photographers and more!

### Keep The Cat Free

Since 1974, "Keep the cat free" has been Felix's motto and a central tenet of its operation. The phrase applies in three aspects: editorial independence, free to read and free to write.

speech. Just because we can say something doesn't mean we should. Felix will always be an inclusive environment for as many people as possible. This being said, Felix does not conflate offence with harm, and any content that is not illegal or deeply immoral can be published at the Editor's discretion, with the following statements in mind.

The paper will never hold a formal political agenda, nor will it be reliant on advertising for funding, despite the occasional inclusion of ads.

Felix retains the right to criticise anyone, excluding Union staff members, and is accountable only to the law in terms of defamation. As part of the Union, Felix is constituent to a charity that represents students. For this reason, Felix Editorial independence does not mean unfettered free will never actively damage an individual student's welfare without a considerable argument for public interest.

> Since 1971 the paper has been free to pick up and read and will remain this way indefinitely.

> The paper will always be a place that students, staff and alumni can write freely. This statement applies exclusively to the aforementioned groups, and guest posts, paid or otherwise, are never accepted. In the same spirit, Felix will never financially reward any contributions from the above groups.

### Are the College hypocrites? - Interview with Chair of the Sustainability Board

#### Interview

Sam Lovatt Editor in Chief talks to Sam Lee, DPFS and Union Sustainability Chair

As may be apparent, the College is not exactly world-leading in its internal sustainability policies. I sat down with Sam Lee, your Deputy President for Finance and Services and Chair of the Services and Sustainability Board, to discuss how the Union is lobbying the College to change, and what powers it has exactly.

What is the SSB and what is your role in it?

A. SSB stands for Services and Sustainability Board, I am the chair. It is 1 of 5 sub-committees of the Union Council. Each Officer Trustee has a subcommittee within the Union and SSB is mine so I chair it. It is comprised of two smaller committees, the Sustainability Committee and the Events and Venues Committee. I see this as a crucial dialogue to be maintained within the Union as one should always consider the other. There is a split though - only those elected into sustainability-based

roles are able to vote sustainability on Members issues. include the Ethics and Environment Officer, FOOD WASTE Soc IS CURRENTLY Environmental On President etc. Services, we have some **VERY LOW** barstaff, a DramSocrep,

etc. These reps together work towards a sustainable but productive way forward. What is the board's environmentally?

A. As DPFS, one of the by-law clauses is that my role is focused on Union sustainability, as well as lobbying the College. We try to encourage the College to do better at sustainability internally, as well as with their associations with other companies Do you have any specific examples of what vou're

College

the

A. As a sub-committee of the Union Council it operates in the same way as others, where any member can produce a paper and bring it to the Council and it is voted on. If approved I, and other Union members, can be compelled to undertake certain tasks or lobby on certain issues. An example is a cooperation with the anti-food waste company TooGoodToGo, where students and staff will hopefully be allowed to purchase food at a cheaper price when they're about to go out of date. We currently don't fully understand the College's wastage programme, including the remit of the College in food waste disposal where the food could not be sold on, so this is something we need to hear more from them on. Can the College overrule SSB anything? on

. The SSB sits within the Union Aand not the College, meaning the College technically doesn't have to do anything the SSB asks it to do. The SSB can only lobby or advise. However, as reps who will continue to foster good relations with College members of

> staff, we hope that they will realise this is in the interest of students and implement where they can. So far there have been clear issues that the College will not budge on despite Union pressure.

. Many students are unhappy with the Union's and the College's use of single-use plastics, in cups, cutlery etc., which has been massively exacerbated by Covid. Does the SSB have any plans in improving the footprint here?

A. As we look forward to welcome week we have been mindful of this, given the large amount of food and drink that will likely be bought. I have spoken to the Director of Venues and Director of Finance and Resources and we have agreed that all cutlery will from now



be wooden rather than plastic. This is effective already and the Union will buy no more plastic cutlery, however there is still some plastic cutlery in circulation which had been bought before the decision was made. In the lead-up to Welcome Week, the venues team has been tasked with coming up with widerranging solution to single-use plastics, which at the moment is looking like it'll come in the form of a reusable plastic

which can be used at times where we are unable to serve in glass. As many returning students will know, ASASTEM this happens at certain continued use of glass students. These can re-used, or taken out BASIS from a company that

will continually come, clean them and driven way to come to these decisions return them for a very reasonable fee. The exact scheme is not yet decided. We are able to afford to do these schemes thanks to the new funding model which the Union recently switched to.

currently go from the Union?

A. Food waste is currently very low as it's mostly frozen. Food that does need to be wasted, for example from unfinished plates, is wasted under the College's wider scheme of biodegradation. Excess food is fed into an anaerobic bioreactor which breaks it down and uses the energy released to generate electricity, which in turn powers the College.

times of the evening INSTITUTION at FiveSixEight, where WE NEED TO could lead to injury of MAKE THESE particularly\_inebriated **DECISIONS ON** either be washed and A DATA-DRIVEN

Where have decisions made? For example, on the wooden cutlery, is the use of "green" alternatives assessed qualitatively? I know, for example, that it is often more energy intensive and requires a lot more water to generate wooden cutlery when compared with plastic cutlery. Is there a data-

or is it currently just on gut feel?

A. Truthfully at the moment it is more intuitive, however that's something we want to move away from. Our Back to Basics plan in the Union Where does food waste includes growth of our representation team, including hiring a policy officer

#### **NEWS**

and a campaigns officer. This will form is the case, and the EnvSoc President a team that will research further these sorts of decisions, both within the however I would be very surprised if the

Union and as material that can be used to lobby the College to improve. As a STEM make these decisions on a data-driven basis. THE COLLEGE'S Currently people such **CURRENT** as myself, who are not experts on these issues, **POSITION IS** are the main drivers of HYPOCRITICAL? these policy changes. In the future we want to make more use of I DON'T THINK our expert volunteers more ANYONE make decisions. COULD SEE IT

might be an extremely pragmatic person,

general state of people similar positions wasn't this way. Do you think inclusion of only institution we need to WOULD YOU SAY these people might sway the Union's lobbying so far in one direction that the requests become unreasonable and the College stops listening?

> . The place the SSB Asits on that scale changes year on year. The conversation occurs between the SSB and the College, mediated by the Officer Trustees.

It is the job of the OTs

On a scale **DIFFERENTLY** of pragmatism to idealism, one to bring pragmatism to the requests of might assume that people such as the the SSB and frame them in a way most likely to get the College to listen. People elected into the environment-related roles will never usually have direct experience. I don't know whether this contact with the College in regards to

environmental lobbying. I also think that the current state of affairs demands more idealism. Imperial College is very far behind in the industry and currently has no full-time member of staff responsible for sustainability, although they are recruiting. The head of the Sustainability Advisory Board is also a Chemistry lecturer. The College needs to take this a lot more seriously. We are trailblazing in some research areas related to sustainability and the fact we are so far behind in our industry is not okay.

Would you say that the College's current position is hypocritical, given what you've just said when comparing their courses offered to their internal actions?

. Truthfully, it comes across that way, and I don't think anyone could see it differently. If you're producing these people but not then utilising them there's something wrong. A change in the College utilising the people who come out of these courses as experts would be welcomed by all, I believe.

How can students get involved in theSustainability side of the Union?

. Involve yourself in the Union's Ethics and Environmental network - they will be present at the Fresher's Fair where you can join mailing lists. The SSB can be a bit daunting to bring a paper forward, however if you think there's a real problem that needs solving within the Union or College, I would love to have a conversation with you, and we could end up producing a Council paper that causes real change. Joining the Environmental Society, speaking to the Ethics and Environment officer, joining Veg Soc if you're that way inclined, and many other options offer ways to expand your impact on helping climate change. The more people that get involved the bigger mandate we have for the College to change their ways.

#### TL:DR

The SSB is just a lobbying group, but it's the most powerful lobbying group students have to influence the College. Sam is chairing it this year and changes within the Union are happening constantly. Single-use plastics are essentially out the door and the Union is going the extra mile in most aspects to reduce landfill and please students. Decisions surrounding sustainability are currently largely based on intuition but this will change in the future, and decisions will become increasingly data-driven. The College already has a fairly robust system of dealing with foodwaste in the form of a bioreactor that converts the energy from the waste into electricity, however this is a gem in quite a dull crown. Large plans for the future include cooperation with TooGoodToGo, which could allow students and staff to buy food close to its sell-by date at a reduced cost.

### Vaccine Centres Come to Campus

Imperial College will be hosting handed out directly to those receiving pop-up vaccination centres across its campus from the beginning of the Autumn Term and will continue to encourage students to get their first and second jabs as soon as they can, a College spokesperson has confirmed.

Environmental Society President would

be more idealistic than most, and is

also unlikely to have much industry

Vaccines will be supplied by the NHS and will be free to all home and international students.

Students getting either dose of the vaccine will be entitled to a small reward of campus food and drink vouchers, although the exact details of these have not yet been finalised. These rewards will akin to the experience of "when vou give blood", and may come in the form of tea, coffee and snacks their jab. The College is working closely with Imperial College Union (ICU) to provide these incentives.

The decision for these pop-up vaccination centres to go ahead comes as a result of deliberation within the College's Covid Operations Group (COG), headed by Director of Academic Services, Richard Martin.

Felix approached the College to ask about a Uni of Sussexstyle incentive scheme where 10 double-jabbed students are chosen at random to win £5000 however the COG has opted for the pop-up vaccine centres instead.

When approached for comment, ICU said the idea behind the small incentives was to "encourage any students or staff, who may be otherwise indifferent to having the vaccine, to get vaccinated". They also highlighted that offering anything more substantial as a reward would be unfair on those who have already received both doses of the vaccine.

Both the College and the Union highlighted the strong priority to get as many students jabbed as possible, and that they strongly encourage all students to do so.

This article was previously published on the Felix website and may be seen as leading the reader to believe that the College is providing the vaccine popup tents. The tents are in fact being provided by local council authorities.



Credit: Envato Elements



\*Online at local selected stores only. Minimum spend applies, excludes drinks and ice cream. Offer ends 31/8/22.

Credits: Photo/Helen Murray

ARTS

### A SLOW - BUT POWERFUL - DRIP BY VAIDHISWARAN RAMESH THEATRES BOUNCE BACK STRONG! page

Edited by: Vaidhiswaran Ramesh Alex jackson



London is perhaps the busiest and most diverse city when it comes to art.

Between the West End, museums and galleries...
amd NOT to mention the amazing in-house talent of Imperial students and
various shows and events organized by Imperial arts societies
There is a lot to choose from for the average Imperial student for their occasional
respite from STEM woes.

Through our offering of reviews, features and interviews, this section is here to make that choice easier and informed. And in that process, we seek to provide a relevant platform for discourse and discussion about the arts.

Curated and written by the students, for the students!

#### **Theatre**

#### Overflow: An Exploration of Other

**Overflow** 

\*\*

Where? Bush Theatre
When? Until 9th October, 2021
Howmuch? From £15

Reviewed by Alex Jackson Arts Editor

verflow is a monologue written by the award-winning playwright Travis Alabanza, starring the lovely Reece Lyons as Rose. This play is firmly a barbed commentary on the experience of trans people in the world today and, whilst I would certainly not declare the play an incisive masterpiece, the narrative is thoughtful enough and explores interesting, nuanced topics that no-doubt relate to all audiences regardless of their gender identity. The drama unfolds as Rose, trapped in a bathroom and determined to save herself, reflects on memories of primary school bathrooms; club toilets; and pre-emptive pissing.

When you enter the Bush Theatre you will be greeted by a perplexing set design, one that seems jointly inspired by a typical club toilet and a bathroom from the sets of Downton Abbey. A drop of water constantly drips from the "spaghetti junction" of pipes hanging above the stage. It is this set design that brings the production to life. Drawing inspiration from the grunge aesthetic, the set is extremely dynamic. Lyons plays, very literally, with water throughout; and the dripping, running, and cascading torrents fill the room with an echoey sound, and the platform with a rising line of water. The soundscape complements the tension brought by the unseen characters banging on the bathroom door; and creates smoky reflected patterns on the walls.

Lyons herself is a delight; dressed to the nines in a form-fitting leather boilersuit, she embodies pure pos-



Recect Lyons in Overnow at the Bush Meatic

itive punk energy and I love it! Okay, there were some fleeting awkward moments with the set and a few fluffed lines; but there was a total ownership of the role and an authentic vibe that would be hard to rival. The play is accessible to everyone, but often trite. More than a couple of scenes were exercises in grandstanding more than thoughtful portrayal, and they almost began to ironically reflect the previously condemned dissonance between the words and actions of so-called queer allies.

Not to mention, by the end of the performance, the metaphor of water and flooding was so overworked, the whole thing had begun to seem... fake deep.

All this being said, I had an amazing time, and I would go again. I appreciate shows that pack a punch in a short space of time; and by this measure, Overflow is one of the best things I've seen this year. If you're looking to start the term off by seeing some original theatre, then the Bush Theatre is the place to be.

#### ARTS

#### Theatre

#### A Slow - But Powerful - Drip

The Memory of Water



Where? Hampstead Theatre
When? Until 16th October, 2021
How much? From £10

Reviewed by Vaidhiswaran Ramesh Arts Editor

ocked in a flat the night before their mothers funeral, three sisters are left the deal with the detritus of their 'imagined' past and present, as snow, nostalgia, and troubled memories rock about; In this slow and comic tale all about grief, we watch as the sisters coming to terms with the reality of their mother's death and their catharsis as they handle the impending funeral.

That is perhaps the simplest possible distillation of a synopsis for such a tightly written and layered play. Six characters, three sisters, one mother, an affair, a drug user, a repressed soul, and an insipid marriage life! These elements, wry in and out, adding a subtext that, though not always fleshed out properly, results in a play that is as comedic as it is poignant and as touching as it is aloof.

"The Memory of Water" needs no introduction to those familiar with the London theatrical scene. Written by Shelagh Stephenson in 1996 at the very same Hampstead Theatre, the play has since gone on to win multiple accolades including the "Laurence Olivier Award for Best New Comedy" in 2000 and it's very own movie adaptation (Before You Go) in 2002. However, this shall be the last time I shall draw notice to the earlier production, considering the obvious reason that most of us were not born at the time of its release. But true to form, watching this show in 2021 it is hard to refute that its repute is earned!

The latest run, directed by Alice Hamilton and featuring Lucy Black, Laura Rogers, and Carolina Main, as the three sisters, Teresa, Mary, and Catherine, is an interesting play for a number of reasons. Dealing with a subject such as this required deft handling, both in script and in performance; especially one hoping to strike a fine balance between comic intervention and portraying true catharsis (which this play tepidly does to some extent).

The set design is simple, featuring a simple single bed room with very minimal furnishing and a backdrop of adequately designed/lit clouds hanging overhead. The supporting cast is equally potent, with Lizzy McInnerny (playing the mother Vi), Kulvinder Ghir (playing Frank - Teresa's better half) and Adam Jones (as Mary's married love interest). Together they play wonderful second fiddle to the three sisters, as they wreak havoc within the one room - breaking convention on every single (imagined) instance of British decorum on grieving, with their sordid drinking and insensitivity!



Perhaps the point of that is - sometimes life gets in the way of grieving!

And the play does have its messy 'bits'. With three sisters around, the play does invest disproportionally in Teresa's catharsis. Her 'metamorphosis', stemming from her dreamy recountings with her dead mother Vi, and liaisons with Mark the night before, are the pivots around which the show unarguably revolves. Hence, when and while the show takes a detour to spotlight Mary and Catherines' arc, the play lacks a certain coherence and the indulgence in their storylines comes across as an afterthought of the writer. Perhaps much of this is intended too... but it is tough to imagine what could have been - considering how the play held well together otherwise.

However, none of this is to discount the acting prowess on display! Between McInnerny's penchant monologues as Vi and Main's drunken antics (which is one for the ages); the show is filled with wonderful exuberance. Jones and Ghir take centre stage only when their role demands and linger in the background artfully at other times as the sisters enthrall us with their sibling rivalry.

Memory (imagined or otherwise) and the idea of it is what drives the story. Each character recounts a certain version of their childhood – factual or otherwise. And they are all unreliable witnesses to their own upbringing (as are we all); believing what they can rationalise as the cause of their current sorrows.

The title derives from a clever use of plot exposition within the play (no spoilers) about the remarkable trait of water to hold its properties upon dilution and thus -

The Memory of Water!

At one point in the show, Lucy vouches to live with the cold. With her memories - memories of water! Snow! Cold! Cold and happy in her solace. I'd say let us bid her adieu in this wonderful play that demands a watch! Running until the 16th of October in Hampstead Theatre. Do not miss it.

### All the News That's Fit to Print... AND MORE!

Find even more reviews and interesting articles in the section online at our new website.



www.felixonline.co.uk

#### ARTS

#### Exhibition

#### Abstract Enough?!

#### Sophie Taeuber-Arp



Where? Tate Modern
When? Until 17th October, 2021
How much? From £14 (£5 for 16-25 year olds)

Reviewed by Vaidhiswaran Ramesh Arts Editor

Pe've all seen her work. The quintessential Dada Head and the photograph (inset) destined forever to hang on the walls of trendy coffee houses and the homes of wannabe art connoisseurs studying at the Royal College of Art. Sophie Taeuber-Arp – the face behind the head and one of the leading figures of the early 20th century Dada movement - is perhaps lesser known. Pictured here, Taebuer-Arp is both figuratively hidden behind the Dada head and literally obscured by history's preference for familiar tastes and (male) artists.

Born in Davos, Switzerland in 1889, Taeuber-Arp dabbled in everything from dance, sculpture, textiles, painting, jewellery, architecture, and furniture. Trained initially in textiles, workshops and later in modern dance, Taeuber-Arp revelled in the unconventional from the very beginning. The Dada Head, one of her early and most famous work speaks to this - resembling a lathe-turned-hat-stand - it remains an almost comical abstraction of a human portrait captured unequivocally in the plane of an industrial tool. In time she established herself as a leading modern artist of the early 20th century. And as the first world war drew to a close, Taeuber-Arp's non-conformism found alignment with the Dadaist, a collection of artists who revelled in the radical and the abstract, part of a movement that emerged as a rebellion against all that lead to the horrors of the world war.

The comprehensive exhibition lays bare her repertoire with a carefully curated series of exhibits that demonstrate her versatility not just with medium but also with evolving styles. The exhibition captures everything; from her work in textiles to her experimentation with house furniture; from three-dimensional

reliefs that look like futuristic jigsaw pieces to her lathe turned Dada heads; from her modern dance escapades to mini-puppets and set-design work for plays.

Almost poetically the exhibition is bookended by contrasting styles: beginning with her experimentations with grids and rectangular spaces; to the closing section of the exhibition which focuses on her exploration of geometrical abstraction — filled with sharp lines and patterns, evoking some sort of unbridled spirit in each stroke that is almost in abject contrast to the rigidity of the earlier grid work! These lines and curves weave and interweave almost like her work on patterns in textiles, creating and leaving behind patches of entrapped bright shades before ending abruptly at an apex. The result in both types of work is an intricate mosaic of colours and shapes that continues to push the boundaries of abstraction in art.

In between these two sections, we see sprouts of her genius in other avenues, from the architectural design of her house to designs for textiles and necklaces.

Perhaps no other work captures the ingenuity of the artist as her marvellous work on marionettes from 1918. Commissioned to produce the set design and puppets for the play "König Hirsch" (The King Stag) by Carlo Gozzi, Taeuber-Arp masterfully applied clean geometrical shapes, bright colours, and considerate use of sharp edges to render her version of playful three-dimensional Cubism.

While these are certainly highlights, the exhibition puts it best foot forward in contextualising and appreciating the work within. There is an ever-present danger in curating an exhibition featuring (pretty much) the entire repertoire of an abstract artist. Sketches and thematic works can shine a spotlight on the artistic process unlike any single piece of work ever can. These can be used masterfully to cast an incisive perspective into the evolution of an artist's work; or it can come across as nothing more than a collection of exhibits with no story — thrown together and tied loosely, if at all, by only the association in name. Whilst the exhibition does certain sections well (particularly those covering her textile work), it is undeniable that whilst covering



some themes, this exhibition at the Tate Modern veers into the disorganised and self-indulged. Perhaps it's a little unkind to the modern art exhibition (particularly one of this scale) to expect more than what some exhibits have to offer themselves. After all, what can one do when most sketches are labelled perfunctorily as "Grid Patterns" and "Vertical-Horizontal Composition"? That being said, in an exhibition brimming with novelty and story, to labour this point would be to miss the forest for these (very) few trees.

Sophie Taeuber-Arp died, somewhat trivially, having evaded the Nazis and death during the war, due to an accidental case of carbon monoxide poisoning in Switzerland in 1943. Versatile and path-breaking, it is indeed a mystery how her work has evaded mainstream exhibition in the UK until now. This latest co-ordinated travelling exhibition (organised by the Kunst Museum Basel, Tate Modern and the Museum of Modern Art, New York) has finally brought the artist's work to the UK. To miss it would be criminal!

### We are recruiting

Are you passionate about arts? Interested in attending and reviewing FREE press shows of events in London, and contributing to the section?

We are currently recruiting editors and writers for the section for the upcoming term - everyone is welcome to come aboard irrepective of prior experience.

If interested please join the Facebook group for the section (using the QR code) where we reguarly post press show tickets and writing prompts.

Or write to arts.felix@imperial.ac.uk



Edited by: ISABELLE ZHANG
JAMIE JOHN

### SCIENCE

### Woolly mammoth resurrection..

Natalia Glazman Science Writer

While the rest of the world has been justifiably preoccupied with the burning of fossil fuels and its effect on the climate, conservationists have been trying to find innovative ways to prevent further warming of the earth and preserve earth's biodiversity.

The news that woolly mammoths could soon be roaming among us has gripped the attention of media sources and their readers alike for the past week. Colossal, a private biotech firm, has announced the launch of a radical de-extinction project with a bold mission: to bring back woolly mammoths by creating an elephant-mammoth hybrid, and more importantly, use this

Photo credits: Pixabay

hybrid to help fight climate change and improve biodiversity. Having already raised \$15 million in initial funding, the start-up is confident that it will achieve its aims.

But how could bringing back an animal that became extinct 10,000 years ago work to halt the warming climate?

To answer this, we must first understand one of the potentially biggest climate change contributors that is rarely discussed – permafrost. Permafrost

The extinciton of the woolly mammoth began

is simply defined as ground that has been at the temperature of  $0^{\rm oc}$  or lower for two consecutive years. This frozen land makes up an expansive 24% of the Northern Hemisphere, covering vast stretches of Siberia and Alaska.

However, as you might expect in a warming climate, this ground is not staying frozen. In the last few decades, permafrost has begun to thaw, at the same time releasing just some of the 1,600 billion tonnes of carbon dioxide stored within it, as well as the greenhouse gases methane and nitrous oxide. That is double the CO2 levels currently in the atmosphere. This process occurs when the ground temperature rises above freezing, allowing microorganisms to break down organic matter in the soil, and in the process releasing greenhouse gases. It is estimated that by the end of the century.

that by the end of the century, 40% of the earth's permafrost land will have thawed.

The idea of using large animals to protect permafrost is not new; in fact, it has already been attempted by a Russian father-and-son team, who Colossal is in collaboration with. Since 1996, Sergei and Nikita Zimov have been working on the Siberian 'Pleistoscene Park' where they have been bringing animals, including bison, horses, reindeer, goats, and other herbivores, to

repopulate the land. 14,500 years ago, these animals used to sustain the permafrost layer as they could tramp down deep snow, allowing heat to escape from the ground and locking in the cold. Their presence also helped grasslands thrive, which takes water out of the soil and into the atmosphere, cooling the ground at the same time. When these animals disappeared from the region and moved down to Europe and Asia, they left the permafrost unprotected and vulnerable to a warming climate.

According to the Zimovs, the results of this project have been promising; the animals have adapted well to their new biome, and the scientists are noting a cooler ground temperature where the animals roam compared to the surrounding areas.

Meanwhile, Colossal has begun what the two Russian scientists have only dreamt about up until now – repopulation of the Siberian plains with woolly mammoths. Although, these animals won't really be woolly mammoths. Colossal describes its project as 'Woolly Mammoth De-extinction', but the technique that the company has developed is based on the use of Asian elephants.

The team, led by Harvard's geneticist George Church since 2017, is planning on using CRISPR to edit the genome of the endangered Asian elephant, native to the temperate climate of South and Southeast Asia. To help the animal survive in the harsh temperatures of Siberia, the scientists will edit the parts of the elephant's genome responsible for cold resistance, such as fat insulation and hair, to replace them with mammoth genes. According to Church, Colossal's goal is 'to make a cold-resistant elephant'.

The benefit of using a mammoth-elephant hybrid, according to Colossal and the Zimovs, is that apart from tramping down snow, these animals should also knock down trees, recreating a steppe ecosystem that used to exist 10,000 years ago. Grass absorbs less heat than

# ..effective solution to climate change or flashy money magnet?

trees, and therefore the ground will heat up more slowly.

But scientists are sceptical; although the Pleistocene Park has seemingly been a success, we must understand the scale that is needed of this project. The Zimovs have been able to populate the Siberian tundra with only around 200 animals so far – a number that is too low to have a profound effect on carbon emissions.

According to Colossal, it will first take about five years before a hybrid calf would be born, and then another fourteen until it is able to reproduce. If this happens to be a success, the company will need to breed enough elephant-mammoths to repopulate 3 million km2 of Russian land in order to prevent a significant amount of greenhouse gases from being released.

To many conservationists and climate scientists, this feat seems improbable, if not impossible.

There are other hurdles Colossal has yet to face; the first one is getting the Russian government to agree to the use of a vast amount of land by an American business. Then, according to conservationists, bringing back a population of animals that has been extinct for thousands of years is risky, as we cannot understand how they will be able to adapt and fit into the biome.

Finally, many scientists have voiced the opinion that vast amounts of money and resources are being misdirected. Instead of spending millions on an idea that has a low probability of being successful, they claim that it would instead be more useful to direct that money to de-extinction project that we already

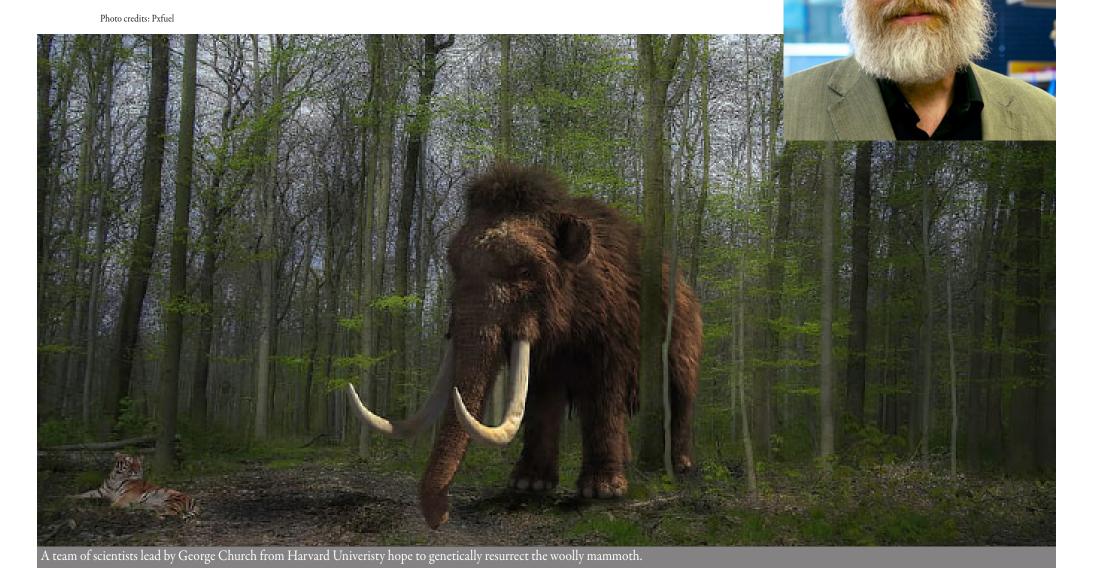
know will work.

For example, conservationists have recently joined efforts to work on a programme that will breed coral reefs to make them more heat resistant. Coral reefs - the ecosystem with the highest biodiversity on earth - directly supports the livelihood of over 500 million people worldwide. It is paramount that we protect them now, as according to UNESCO, coral reefs in all reef-containing World Heritage sites could cease to exist by the end of the century. This is why, to many climate scientists and conservationists, a project that will only begin to work in 20 years does not seem like a wise target for 15 million dollars of funding.

If we are to avoid the most severe outcomes of climate change, we must limit global average rise

in temperature to 2oC. This would require global greenhouse gas emissions to be cut by 60% by 2050. To truly make a difference to the rate of global warming, we simply need to focus on the obvious solution – moving our economy away from fossil fuels and towards renewable energy sources. We simply can't afford to wait and see if a miracle mammoth project is going to save the planet; we must do it ourselves, and we must do it now.

Photo credits: Harvard University



#### SCIENCE

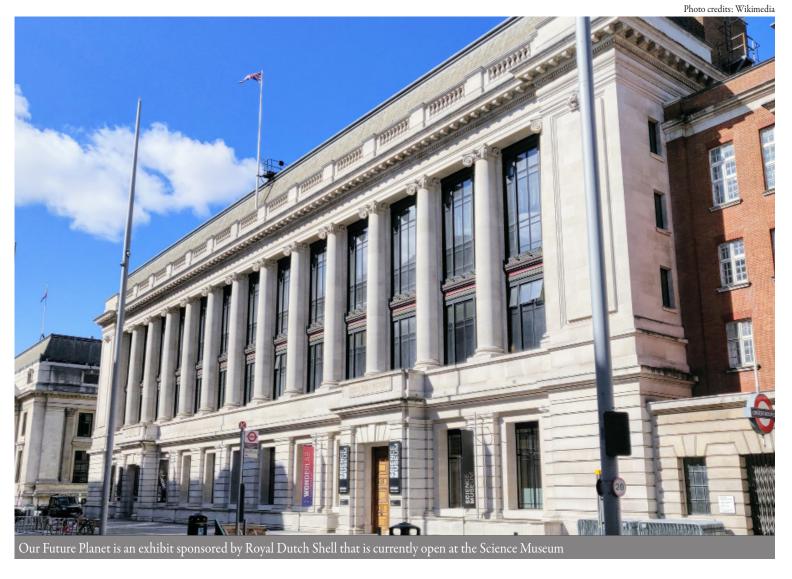
# The Science Museum and the Exploitation of Science - An Unlikely Duo

Ariel Flint Science Writer

n the 19th of May, the Science Museum opened the Our Future Planet exhibition - a showcase of carbon capture technologies, sponsored by oil and gas giant Shell. While some may be pleasantly surprised by Shell's involvement in climate change science, this was nothing but another attempt at greenwashing by another company responsible for the crisis we find ourselves in today.

The 2021 IPCC report made it

strikingly clear that we are at a point of no return, and that it is "code red for humanity". The report states that going back to 1970, global surface temperatures have risen faster than in any other 50-year period over the past 2,000 years, and the changes made to many of our planetary system are irreversible on timescales of centuries to even millennia. And yet, despite all the overwhelming evidence, climate science is still being used as a propaganda tool to prop up politicians and improve the public perception of major companies. In the run up to the 2020 US elections Joe Biden widely pledged to end fracking on federal land, and yet approvals for oil and gas on U.S. public lands are on pace this year to reach their highest level since the Bush administration. Biden's call to "trust the science" on climate change is another case in an epidemic of public figures using climate science as a method of creating a positive public perception without creating meaningful change. The UK claims to be a world leader in climate policy. Indeed, it set itself the most ambitious emission reduction target globally (a cut of 78% by 2035), but the policies enacted by the Tory government have shown an unwillingness to properly engage with the science they seem to promote. Massive roadbuilding plans, the HS2 trainline, and the expansion of Heathrow airport are just some of many large infrastructure projects that will lead to massively increased emissions. The failure of the UK government in blocking the first deep coalmine in three decades is a



horrifying demonstration of all talk and no action climate politics.

In the past scientific development and policy went hand in hand - the space race was a massive propaganda tool for the USSR and the US, but the scientific achievements that came from that era cannot be disputed. In today's world, the space race is led by companies such as Amazon and SpaceX in their quest to build commercial rockets. Their scientific achievements help hide a history of worker abuse and exploitation. Amazon's inclinations are well-known - it was widely reported this year of Amazon delivery drivers having to urinate in bottles while driving due to harsh time constraints, and the working conditions for those in warehouses are not much better. SpaceX's successful rocket program is overshowed by the philosophy of it's owner Elon Musk, who would rather focus on colonising the stars rather than securing our climate first. Space exploration is an important field and should not be undermined, but Musk's ambitions to create worker colonies on Mars - a place which would not be under any country's control - would essentially create a new form of indentured slavery. Tesla is another company using the image of climate consciousness to promote its electric cars yet its investment in bitcoin, a cryptocurrency whose mining exceeded the yearly power consumption of Argentina as a whole, undercuts that image significantly. The issue at hand has never been the lack of scientific development but the misallocation of funds to impractical solutions (like carbon capture and hyperloops), and the unwillingness to earnestly engage in climate science and actually use its findings.

As a partner institution of the Science Museum, the Imperial College Union Council voted not to condemn the

Shell Science Museum greenwashing. As a university which holds within its research arsenal the Grantham Institute for climate change, this is an appalling betrayal of our duty to science. Unfortunately, this is yet another example of Imperial's refusal to divest from fossil fuels, and the Union's apathy on the subject.

Scientific opinion has become a skeuomorph of what it once was. It is used under the guise of change to appeal to more progressive voters, but when the moment to take responsibility for the way capitalist exploitation left our planet arrives it is pushed into the background. A bastion of scientific achievement, the Science Museum is a place to promote the scientific method, and to provide a deeper insight into how the world really works. In a way, Shell's exhibition did just that.

### ENVIRONMENT

Edited by: Monami Miyamoto

View online here!



Photo: Ria Sopala on Pixabay

### Climate-change 101: What's the deal with COP26 and the recent IPCC report?

Monami Miyamoto Environment Editor

f you've vaguely been following any Climate-change or sustainabilityrelated outlets, you're bound to have come across COP26 (formally known as the Conference of Parties 26). Even if you haven't heard of it yet, it'll become an increasingly common topic of conversation over the next few weeks.

The COP26 is the official United Nations Climate Change Conference, hosted annually since 1995 (except for 2020 due to the COVID19 pandemic). It is one of the most influential summits on climate change, and this year it will be held from October 31st to November 12th in Glasgow. The parties involved include 200+ countries, NGOs and faith

groups who were a part of the United Nations Framework Convention Change WE WILL EXCEED Climate Earth Summit in OF OF NOT JUST 1992. Since COP's establishment 1.5 DEGREES, BUT 2 crucial agreements DEGREES WITHIN have been made to limit climate THIS CENTURY

change, including the 1997 Kyoto warming to 1.5 degrees as laid out in Protocol and the 2016 Paris Agreement. Perhaps more well known, the latter was an agreement made at the COP21, involving all signatory countries to reduce greenhouse gas (GHG) emissions through 'Nationally Determined Contributions (NDCs)' that will be reviewed every five years. In essence, everyone is responsible for setting and achieving their own targets for limiting global warming to 1.5 degrees. So far, it's clear that some nations are a lot more ambitious than others.

The conversations between the UNFCCC parties are guided by the research findings from the Intergovernmental Panel on Climate change (IPCC), a group of climate-change experts who publish an assessment report (AR) every five years, based on ratified scientific evidence. These reports are intended to be objective, informative assessments that can guide policy but are not prescriptive. Three working groups put the information together: Working Group I covers The Physical Science Basis, including evidentiary support on the latest climate science knowledge, Working Group II covers climate change impacts, adaptations and vulnerabilities, and Working Group III offers suggestions to mitigate climate

> change. The most recent report, IPCC AR6, came out in August this year.

The findings in (UNFCCC), GLOBAL WARMING AR6 and the context set up at the Rio GLOBAL WARMING of the pandemic is why COP 26 is garnering so much attention. Not only are we far off-track from accomplishing the goal of limiting

> the Paris Agreement, but AR6 made it unequivocally clear that human-induced GHG emissions are responsible for global warming and its related climate tragedies. More bleak is the conclusion that we will exceed global warming of not just 1.5 degrees, but 2 degrees within this century unless GHG emissions are significantly reduced. As David Miliband, CEO of the International Rescue Committee, stated, "The window of opportunity to avoid dangerous climate change is closing more quickly



than previously thought".

Moreover, the economic decline brought on by the COVID-19 pandemic, whilst tragic, is also an opportunity for society to build back stronger - perhaps not even building back but re-building an entirely new way of operating society based on principles of sustainability and justice for all. Thus, the outcomes of COP26 will shape not just the next decade but also the future of our species and planet.

COP26 is split into three sections, with the first being the main negotiations involving world leaders and experts in the field. There will also be observers, including NGOs, specialised UN agencies (e.g. the WHO) and registered press organisations. The second part involves exhibitions and fringe events for delegates and, finally, the third part is made up of talks and events for the public. Some key topics to be discussed include carbon market mechanisms, funding for loss and damage, climate finance, nature-based solutions, and timeframes for NDCs. Felix's environmental section will be covering each of these topics in the next few weeks leading up to the conference.

It's time for governments and societies to set more ambitious targets and, more importantly, take urgent collaborative action to achieve them - one aligned to put our world at a net-zero emission status by 2050. Of course, there are plenty of ways to do this, including phasing out the use of coal, cutting back on deforestation, greater adoption of electric vehicles, investing in renewable energy, and providing the necessary aid for less economically developed countries. But like anything, knowing is not the same as doing. As students, we can do our part by educating ourselves, then making individual choices to limit environmental damage. To learn more about the COP26 and the IPCC report, visit ukcop26.org or ipcc.ch and follow any of their social media outlets. You can also find an excellent summary of the IPCC report's key findings on the 'Headline Statements from the Summary for Policymakers' document available on the IPCC home page. Most importantly, start taking action - get involved in student organisations, join climate change campaigns, re-examine your lifestyle – there are a million ways to help, and every decision counts.

### Climate change has reached the West

Sam Lovatt Editor-in-Chief

If climate history is a rollercoaster, 2021 is the point at which the carriage passes the track's summit, and the G force starts kicking in. I've been interested in preventing climate change for as long as I can remember, even being a member of the behemoth lobbying group that was the "Eco committee" at my primary school. Even at the osteoporotic age of 23, man-made climate change predates me by some margin. In the 60s, it was becoming clear that CO2 affected the world's climate. Evidence mounted, and in 2006, Al Gore's 'An Inconvenient Truth' was released and won an Oscar, providing one of the first real wake-up calls to the public. To an audience of developed nations, all this was terrifying yet merely academic - warmer summers were welcomed by most with open arms, and the foretold natural disasters were yet to be seen en masse. 2021, I believe, is the turning point in our lived experiences. This year we have seen climate catastrophe across the globe: the "heat dome" in the Pacific North West of the US and Canada broke temperature records, started fires that razed villages to the ground, and killed hundreds of



people. Wildfires tore across Greece and Turkey, displacing thousands and destroying countless homes. The "wet bulb" temperature critical for human survival, an environment where a damp cloth over a thermometer registers 35 Celsius or higher, was broken at multiple locations across the globe for the first time ever. In these conditions, humans are not able to survive. Conversely, many parts of the world saw extreme flooding: Germany and Belgium were

ravaged by torrents that caused over 200 deaths and incalculable damage to infrastructure. Monsoons in India have been unprecedentedly erratic. Described as "one of the most stable weather systems on the planet", rainfall was shotgunned across the country in a way that left vast swathes of land flooded whilst leaving all else in a water deficit. Extreme rainfall in Henan province, China, killed over 300 people and left countless homes destroyed.

This is it. So many freak weather events occurred this summer that it's wrong to still call them freak. The IPCC report released this August was the most damning report of our situation so far and was set apart from the rest by one key observation - we cannot stop this. The report makes clear that damage has already been done to the planet that would take millennia to reverse. We can avoid a "catastrophe" if COP26 goes perfectly, but events such as those listed above will only get more common and

> View the full IPCC report here



### Podcast Recommendation: GreenBiz 350

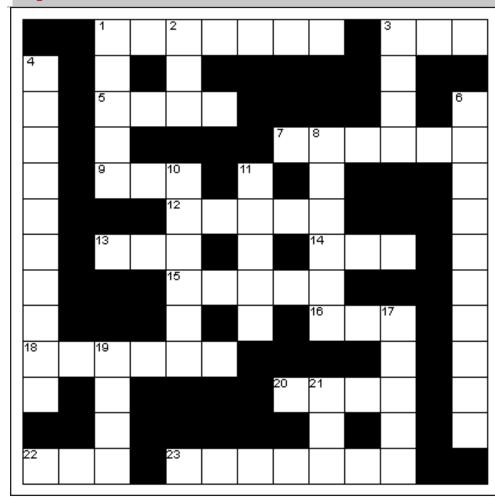
Monami Miyamoto Sustainability Editor economy,

transportation, If you're interested in energy, food systems and Learning about how busi- more. Each episode is only nesses are tackling (or not 30 minutes long but covers tackling) climate change, multiple stories, so you won't check out GreenBiz 360! get bored. The conversations informative podcast also tend to be light-heartthat covers the latest news ed and easy to digest. A on various topics, including truly sustainable, effective climate technology, circular way to learn if you ask me!



#### **PUZZLES**

#### **Regular Crossword**



#### Sudoku

One nice Sudoku puzzle to start off the year! Fill the little boxes in each row, column, and 3x3 box with a digit from 1-9 without repeats.

				3		1		
			4			6		
					5	တ	8	4
		1			3		9	7
		5				8		
7	2		6			5		
8	5	6	1					
		7			4			
		4		5				

#### Think you can do better? Email us!

A correct solution to either puzzle will award you a number of points. Collect points to place in the leaderboard. Submit a scan or picture of your results to the Puzzles Editors each week by mid-day on Wednesday by emailing us at puzzles.felix@imperial.ac.uk. Remember to also send in your team's name!

Collect points each week to ammass glory. Side note: Please come and edit for puzzles because I'm dying under the weight. Thank you!

#### **Across**

- 1 Monrepos Park, Jakarta, Helsinki Market Square, Ludwig van Beethoven, Buenos Aires (7)
- 3 "Consent: It's as Simple as \_\_\_\_" ~ Thames Valley Police (3)
- 5 Snowman who now leads Germany (4)
- 7 Stephen Curry, Maroon 5, Anton Pavlovich Chekhov (6)
- **9** S.T.S' patronus (3)
- 12 Freshwater lake between Zambia and the Democratic Republic of the Congo (5)
- 13 French yes (3)
- **14** Lemon help (3)
- 15 Japanese sun's origin (5)
- 16 "\_\_\_\_ is the highest form of hope" ~ Gerhard Richter (3)
- 18 Over the moon, hit the sack, break a leg (6)
- 20 Reverse of knit (4)
- 22 Business School grad's new suffix (3)
- 23 Mad and demented followers of a Greek God; tore Orphesus limb from limb (7)

#### Down

- 1 Egg-shaped (5)
- 2 Zeta, \_\_\_\_, Theta (3)
- 3 "Life [...] is a \_\_\_\_\_; Told by an idiot, full of sound and fury, Signifying nothing"  $\sim$  Macbeth, William Shakespeare (4)
- 4 Don's final pseudonym in Season 2 of The Newsroom (4, 6)
- 6 Theorem guy who also did not touch beans (10)
- 8 Lizard reptile (6)
- **10** "Rap God" (6)
- 11 "In \_\_\_\_\_'s lake they long oblivion taste, Of future life secure, forgetful of the past." ~ Aeneid, Virgil (5)
- 17 Mahjon 144, Scrabble 100 (5)
- **19** Speck, smidgen, whit, bit (4)
- 21 These undergrads will save freshers from doom during problems classes (3)

#### **Puzzles Recruitment Notice**

Felix is looking for puzzles creators and editors!

If you think our current puzzles are weak, here's your opportunity to apply to become a Puzzles Writer.

Requirements for the role:

- Likes solving puzzles
- Does not shy away from picking up some simple programming
- Thinks they can do as good as us or better

We (and I do use the royal we, as it is just me) would love to hear from you about how easy our puzzles are. Please email felix@ic.ac.uk or puzzles.felix@imperial.ac.uk to apply. Thank you.

#### HANGMAN

### Gast, Sanderson hold extravagant "We're not as bad as Manchester" celebration

Anton Briggs NegaFelix Reporter

The following piece is written from the perspective of Felix reporter Anton Briggs...

Champagne corks ricocheted off the Queen's Tower as I approached the late night festivities taking place on the soon-to-be Dangoor Plaza.

Alice Gast appeared through a crimson balloon arch. You could see the excitement in her vertical-slit eyes as she broke open another bottle of bubbly using a cloven hoof.

"Manchester can suck it!" she exclaimed, to whooping applause from a crowd of College managers. "What's all the fuss about?" I quietly asked an attendee.

"They literally imprisoned their students!" everyone in earshot responded, in unison.

"They racially profiled a student to assume he was a drug dealer!"

"The Vice-Chancellor tracked individual students on social media!". These calls came from across the lawn, apparently unprompted but giving me the context I needed.

As I walked towards Alice, questions racing through my mind, I noticed **REDACTED** lying on one of the lion statues, getting the word "Bruiser" tattooed on her shoulder. I turned away in disgust as I realised she'd selected a serif font for the

piece

As I reached Alice I held out my microphone, by now covered in Jäger, and asked why she was celebrating running the second most infamous university in the country so strongly. In response, she screwed up her face to resemble a peach stone and pointed to a collosal banner hung across the JCR windows that read out the "first the worst, second the best..." nursery rhyme.

I went on to ask another question but was abruptly cut off by Muir Sanderson wheelying a Santander bike into the SAF building.

That's all from Anton today. Actually he hasn't come back to the office since. Anton come back.



#### **ARIES**

This week you fail your bilateral flow test when talks break down between you and your neighbourhood rapper



**TAURUS** 

This week you're capable of basic human decency unlike most other men



**GEMINI** 

This week you can't drown your girlfriend's plush vegetable toys because they know how to swim



**CANCER** 

This week you role-play as a spike protein and your partner is a protease



**LEO** 

This week your team's ice breaker retreat goes horribly right when you all get stranded on an iceberg



**VIRGO** 

This week you get rejected by the graduate accountants scheme of your local drug ring



#### **LIBRA**

This week all that stands between you and a positive relationship with your father figure is a poorly-hidden nudey mug



#### **SCORPIO**

This week you pay your landlord in stock options in your startup



#### **SAGITTARIUS**

This week you follow a 5 minute baklava hack video using printer paper and maple syrup



#### **CAPRICORN**

This week you take some antibiotics and some probiotics and let them fight it out



#### **AQUARIUS**

This week you get your box eaten on Box Hill



#### **PISCES**

This week you pour brownie mix in your mouth and gawp at the sun

#### QUOTE OF THE WEEK

- "'in a liberal society, offence is the price we pay for freedom"
- Trevor Phillips

#### **Your Union**

#### Welcome 2021...IT'S ON!





#### Welcome & Welcome Back!

To those who are new and don't know who we are: we're a community of almost 20,000 students on an adventure to make sure you love your time at Imperial! As an Imperial student, you're already a member.

We know that starting a university degree can be a nerve-racking experience and we want to make sure that you don't miss anything that uni life has to offer, that's what we're here for. Whether you're looking to make new friends, try a new hobby (or practice one you already love), develop your skills, need advice, like to socialise at the student bar, represent your peers or simply concentrate on having the best academic experience you can, we're here to support you through it all.

You can find us in Beit Quad, on South Kensington Campus, or connect with us online at: **imperial**college**union.**org and through our social media channels:

(f) ImperialCollegeUnion (9) (a) (e) (cunion



Enjoy your Welcome Week and all the awesome events we've planned for you! It's on!



#### Stay safe!

We're super excited to see you all have fun and meet new people from around the world in our bars and venues! As your Union, we're committed to ensuring the risk of COVID-19 transmission in our venues is minimised and any activity we organise is safe. We want you to socialise and have the best experience possible – but we want you to do this safely!

We are therefore asking everyone who plans to visit our venues to:

- Get fully vaccinated. College have organised for pop-up vaccine clinics to take place on 6, 7, 13, 14, 20, and 21 October. Find out more information on the College website and book your slot!
- Get tested regularly at least twice a week if coming onto campus.
- If you're attending any of our events, please take a lateral flow device (LFD) test at home 24 hours beforehand. If the test is positive, please do not attend. Refunds will be offered for any event(s) you can't attend due to a positive result.
- For everyone's safety, **you must not attend our venues if:**
- You have been told to self-isolate by NHS Track and Trace or the College's Coronavirus Contact Tracing Hub.
- · You have tested positive using a LFD test and are awaiting a confirmatory PCR test.
- You are displaying any symptoms of COVID-19.

If everyone follows the safety measures outlined, we guarantee Welcome 2021 will be one you won't forget!

#### **Celebrate Black History Month with us!**

This year we've been working on a Black History Month that is a celebration of Black culture and achievement.

Together with our Black and Minority Ethnic Officer, we're working on putting together some interesting events for you. We'll be featuring Black figures within STEM from the past, present and future that have done, or are doing, incredible things in their field

There are many local events you can attend in London that have either been put together by Black creatives and are inspired by Black history, or celebrate Black History Month, so we're keen to get news on a few of those out to all of you.

College and our CSPs have some great stuff planned too, which we'll be spotlighting and pointing you towards those across our social channels - keep an eye on our social media channels throughout the month as we highlight a few.



#### You've got the power!

Power over what, you ask? Your student experience - academic, non-academic, wellbeing and social life, you've got a say in it. Whether you're standing for a position yourself or supporting someone you know by voting for them, it's all about what you want your student life to look like. You can make that happen by getting involved in the Autumn Elections.

Your Reps and Officers influence the student learning experience, help their peers access support, represent their area of study at Union Council, or ensure underrepresented groups are heard.

Nominations open at noon, Saturday 2 October for those interested in becoming

- Academic Reps
- Wellbeing Reps
- Liberation & Community Committees
- Constituent Union Committees
- Clubs, Societies & Projects Committees.

Nominations close at noon on Tuesday 12 October, while voting opens at noon on Monday 18 October.

For more information and to stand for a position when nominations open, visit imperialcollegeunion.org/ae21.

### HROWBACK

What was Imperial college like in the past? Early issues of FELIX PROVIDE A GLIMPSE INTO STUDENT LIFE FROM DECADES AGO..

W.I.S.T.

#### **Bra-Burning** Feminists??

There will be a meeting of W.I.S.T. (Women in Science and Technology) on Monday October 24 from 12.30-1.30 in the Green Committee Room on the Top Floor

of the Union Building. The meeting is to discuss our programme of events for this year.

Apparently, in the past, members of W.I.S.T. had a reputation of being bra-burning feminists. This year, I would like to see the Society representing a larger proportion of women at IC. So don't be put off the Society if you're not a feminist-I could hardly be described as 'militant' myself. We are not a group of man haters either. In fact, men are perfectly welcome at our meetings, as long as they are genuinely interested in the issue under discussion.

This year's Committee are: Chairperson: Lindsey Wishart Treasurer: Sarah Liebert Secretary: Jo Cocup

And finally, the Society depends on its members, so come along on Monday and see what you think.

Year 1988 Felix Issue 814

If you've found interesting articles in the Felix Archive, send us an email and we'll publish it!

#### How our graduates fare

LAST SUMMER, 739 people (665 men, 74 women) graduated from IC. Of these, 7½% (50) of the men and 9.4% (7) of the women were still seeking jobs at the end of last December. The overall proportion of graduates still unemployed at that time was 10.1%, according to the University of London Careers Advisory Service. This figure includes 2.6% of those

contacted who failed to reply. The figure of 10.1% (for 1975) compares with 7.8% in 1974, 11.9% in 1973 and 10.9% in 1972.

The feedback to departments careers advisors on job offers and acceptances registered by prospective graduates suggest no marked change from previous

Year 1976 Felix Issue 422

20 MORE RESIDENCE PLACES FOR WOMEN ---

### SEX DISCRIMINAT

#### VAT ERROR

IN 1973, Joseph Murray, Warden of the Allen Hall of Residence (University of Manchester) refused to charge VAT on guest room fees during termtime. The Government's VAT Commissioners disagreed with his attitude and took him to court. The resulting VAT Tribunal upheld the Warden's decision and ruled that no VAT is payable on guest room fees on a student area during termtime.

This came to light when the Deputy President, Ron Kill, was reading through the quart-erly newsletter of the Association of College Wardens

College Block

Re-named

College Block, the administrative core of the college which was opened in December 1969 by the Queen, is to be re-named at last.

It is to be called "The Sherfield Building" in recognition of Lord Sherfield's services to the College as Chairman of the Governing Body from 1962—1974. One suspects that the College was waiting for a prominent College dignitary to either die or leave before any re-naming would take place, but that is just sheer speculation.

Additionally, the new hostel Additionally, the new hostel block which was completed at the College Field Station, Silwood Park, in February 1974 is to be named "William Penney Hall" in recognition of Lord Penney's long association with the College as a student, staff member and Rector from 1967 – 1973. in the absence of the Tizard Hall Warden, Dr Geoff Evans.

The legal reference for the case is 1 VATTR 33 1973 and case is 1 VATTR 33 1973 and it is clear that the case was contested in 1973. The guests of students at IC, however, have been paying VAT on guest rooms throughout the session. It is obvious that the College Block financial machinery has slipped up somewhere along the line. The College's popular 'VATman', Terry Dooris, left College at the end of last term so there is a state of confusion as to how this all happened. as to how this all happened.

Undertakings have been given that this unfortunate situation will be sorted out.

But in the meantime, all those who have been charged VAT on guest room fees are entitled to a refund.

THE COLLEGE has decided to raise the proportion of women in residence (halls and houses) from 10.7% to 12.3%. This has resulted from the allocation of twenty of the thirtynine new places, which will be available from next October,

nine new places, which will be to women.

It is College policy to align percentage of women in residence with the percentage of women at the College. If this is to be the case, then on present figures there will have to be nearly 100 more women at IC next year, making a total of over 500. It appears that in recent years, a greater proportion of students have been women than the estimated figures on which the allocation of places was based. (Last year is being quoted as an exception since 10.7% of all residents in halls and houses were female whereas they only formed 10.1% of the College).

However it would seem that even allowing for this, an increase of 20-25% in the female contingent of the College is a major overestimation.

Lady Anne Thorne, the Senior Tutor for women, was approached by FELIX. On our suggestion that it would appear that women were clearly going to be given greater preference than men, she replied with three points: firstly, the number of women at College does have a general upwards trend; secondly, a high percentage of

women are freshers, who therewomen are freshers, who therefore tend to soak up a lot of
places at the expense of second
and third years; and thirdly;
far more female than male PG's
wish to have to rooms in residence so once again they would
tend to soak up the women's
allocation at the expense of the
second and third years. Thus
the admitted "overestimation"
is to help out the second and
third years.

The opponents of this

third years.

The opponents of this scheme say that it is ill-planned and that it does not take into account many aspects of the residence situation. The point was made that women much prefer single rooms than double rooms (are fewer single rooms going to be available to men?) and that on the whole there is a far wider range of alternative accommodation facilities available for women than for men.

There seems to be a general

than for men.

There seems to be a general feeling of disapproval amongst the men at IC and the Union did, in fact, oppose the move but to no avail.

When asked to comment, Bill Gerrard, the Warden of Mining House said "I feel a little disappointed that Lady Anne Thorne did not take the trouble to personally consult enough people on this matter. There are still some uncertainties as to how the scheme may be implemented in practical terms."

The final Union view on the The final Union view on the matter was the expectation that the places will not all be filled next year. A request is to be made for letting men into the vacant rooms if this turns out to be the case.

#### RIZ IS THE NEW DP

YESTERDAY AFTERNOON,
Riz Shakir, currently the
Features Editor of FELIX, was
declared elected to the post of
Deputy President of IC Union
for the next academic session.
Despite the fact that there
were two fully proposed candidates when the nomination
papers came down on Monday,
Mr Shakir was nevertheless
declared elected when his

opponent, Graham Paterson, withdrew from the election.

The result has generally released sighs of relief from certain sectors of the Union who were convinced that if the election went to a ballot, it would certainly have been inquorate and thus necessitated yet another election. The election is, of course, subject to ratification at the next UGM.

Year 1975 Felix Issue 386

**ODDS AND ENDS** 

### An intro Felix

In 1887 H. G. Wells founded the Science Schools Journal and after a number of iterations, Felix assumed its final form in 1949. As a voice for students, Felix strives to hold the College and Union to account through investigation by our News team, as well as offering a platform to read and write about almost anything that interests them. We are a constitutionally unusual student newspaper, where we do not fall directly under the Union's umbrella and therefore do not have to act as its mouthpiece. This puts us in a unique position to hold all aspects of leadership to account, and more importantly means we can tell the President he's a nerd and not be censured (sorry Lloyd).

The next bit is so important, I've even made the text a bit bigger:

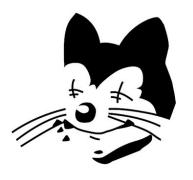
#### **ANYONE CAN WRITE FOR FELIX!**

In the first issue, 09 December 1949, the words "success or failure of this paper depends principally upon you" appeared on the first page. This statement could not be more true today. Felix relies entirely on enthusiastic, intelligent and analytical students to produce the articles that so many love to read. I also have it on good authority that most of the College's senior management read Felix, so if you want to send a message, there's no better way than an aggressive Comment article. If you're interested, please email the Editor, Sam, at felix@ic.ac.uk.

### Keep the Cat Free

The Felix motto has been in place since 1974 and remains a core tenet of the paper's operation. Adopted initially after the removal of the cost to buy the paper, it covers financial and philosophical aspects of the organisation. We will never use financial incentives as a way of progressing our content. We will always consider an article for publishing as long as it is neither illegal nor immoral. A full look at the motto can be found on page 2. However, if you take one thing away from this section, let it be this: we want YOU to write for Felix.





### What's a Constituent Union?

#### Royal College of Science (RCSU)

A big welcome from everyone on the RCSU Committee! RCSU is your Constituent Union if you are studying one of these 5 subjects: Maths, Physics, Chemistry, Biology, and Biochemistry. We hope you are as excited as we are to join the RCSU family.



To give you a taste of the experiences you will have at this university, we have planned tons of events to help you mingle with other RCSU students.

Key Events to attend for new RCSU students:

Our Annual RCSU Pub Crawl on the \*\*[date]\*\* (not to brag, but this is the biggest Pub Crawl anywhere on campus, and the first 200 students who join get a free t-shirt)

Our Annual RCSU Autumn Ball \*\*(date TBD)\*\* but will be in late October/Early November. We wear fancy outfits and have an amazing party night with lots of dancing.

Our RCSU Mums and Dads Bar Night event \*\*in the 3rd week of term\*\* will be a great opportunity to spend time at the Union with the families you were assigned to by your departmental societies, and you can also get a chance to mingle with other families in the RCSU.

#### Imperial College School of Medicine (ICSMSU)

Our ICSMSU has tonnes of events lined up for Freshers' this year – we're super lucky to be able to deliver a fortnight of events for our Freshers!



From the highly anticipated Boat Party – Raiders of the Lost Ark, where you depart from Festival Pier on a sightseeing tour of London, to our enduring tradition of the 'Reynolds Show' which includes various unique challenges for Freshers and older years to both get involved in!

We'll meet all of you at our ICSMSU welcome in SAF to kick off the fortnight and you can also expect to head to the famous Heaven nightclub after the Fulham Palace Crusade in the first week. There are so many more events to get involved with – you can follow our ICSMSU Events Calendar for all things ICSMSU, and more information can be found on our website and social media @icsmsu.

See the Ents calander by scanning below



#### City and Guilds (CGCU)

The City and Guilds College Union (CGCU) is the student union for engineers at Imperial. You are automatically a member if you are a part of any of the following departments:

- Aeronautics Engineering
- Biomedical Engineering
- Civil Engineering
- Electrical and Electronic
- Engineering
- Mechanical Engineering
- Computing
- Chemical EngineeringDesign Engineering

Our job as a student-run union is to support you during your studies. We are here to represent you on your academic, well-being, and clubs & societies issues.

We also organise many events throughout the year - from networking sessions with industry specialists to fun socials and even puppy therapy - to help you make the most of your time here!

Our flagship event - the Annual Engineering Welcome Dinner - will be taking place this year at the Guildhall on the 30th of October from 6 pm til late. Follow our social media (IG: @ic\_cgcu, FB: @IC.CGCU) to keep up with updates and events!

#### Royal School of Mines (RSMU)

The Royal School of Mines Union represents Earth Science & Engineering and Materials Science Undergraduates from the Faculty of Engineering, in addition to Postgraduates as social members. The RSM is the smallest and oldest Constituent Union but nonetheless one of the most lively and full of traditions, as well as regularly creating new ones.

You can find out more about the RSMU here:



Freshers Fortnight events include: Scavenger Hunt, Bowling, Union Bar Night, RSM Olympics, Film Night (in partnership with FilmSoc), Putt in the Park, Rock'N'Talk and Freshers' Dinner



ODDS AND ENDS

### An intro to the Felix Sections

**NEWS** 

Arguably the core of the paper, reporting on the goings on around campus and on the University's global standing. News writers are able to investigate anything College-related, with the ability to publish anything breaking immediately on the website. We've previously published pieces whose content make it to national news

**ARTS** 

Arts is one of Felix's most-read sections, and for good reason. Our Arts writers and editors cover a vast range of plays, musicals, exhibitions and more from around London, writing reviews and recommendations for the readsership. Expect a stream of free tickets to all of the above when you become an Arts writer

**SCIENCE** 

Something of a lead section at our STEM-only university. Covering all aspects of science, though primarily Imperial-focussed, the Science section is a place to keep up with the latest advances across a number of fields, where anyone can practice their science communication skills

**ENVIRONMENT** 

The world around us is becoming less healthy ay a terrfying rate, and the Environment section is here to help you set your doomsday clock as accurately as possible (joke). Environment covers all aspects of the natural and man-made world, including policy changes, progress and hinderance to new-zero

**MUSIC** 

Similar to the Arts section, music offers reviews and recommendations to our readers, with free tickets to gigs and more for our consistent writers

**BOOKS** 

Are you a bookworm? Then slither on over to the Books section where you can review any and all books. Publishers will send us free books to review from time to time, and guess what, you get to keep them

**FILM** 

Hollywood trembles as our film writers put pen to paper. Review anything you want, be it blockbusters or unique independent films that you can only watch once the creator has emailed you the link (this may sound like a joke, but we hae reviews of films like this in our portfolio)

**FOOD** 

Did you start a food Instagram during lockdown? Want to take it to the next level? Then join the Food team! Review venues and home-cooked dishes in brief, easy to digest articles (pun intended) that offer a recipe or a rating out of 5. Also, expect the occasional free meal out in return for a review...

**INVESTMENT** 

Run by Imperial College Investment Society, the investment section offers explainers and intros to different investment options, predictions for the future and reports on goings on that affect the stock market.

**COMMENT** 

A place to express your opnions on any issues, Imperial-related or not. We will always try to offer a balanced view of a topic, publishing two sides of an argument at the same time where possible.

**SPORT** 

You guessed it. The Sport section covers most sport at Imperial as well as certain pieces on the wider sporting world and follows closely our athletes who make it to national level and beyond

### First term Bingo

Walked in/ joined a meeting more than 5 minutes late	Set up a bank account	Attended Mums and Dads event	Missed the last train and had to crash at someone else's place	Spent an entire lunch arguing about something ridiculous	
Walked through Hyde Park at a very questionable time of the night	Collected ID card	Had someone on your course hit reply all	Met 10 people at Welcome Week you will never meet again	Attended an event organised by your CU	
Attended an event organised by your departmental society	Had to buy something you never considered you might have to	Make a hat out of this page, wear it on campus, and send us a picture to collect (+ 0.5 pts on the puzzles leaderboard)	Got yourself locked out of your accommodation	Started guzzling down worrying amounts of caffeine	
Received too many emails after Welcome Fair	Joined a cultural society	Attended an event for the free food	No unread emails at the end of Week 2	Forgot someone's name more than 3 times	
Got curly fries from Union	Collected BRP	Got lost in a new area of London	Found a seat in the library	11 1 4	

### WELCOME WEEK EVENTS SCHEDULE

#### 2-3 OCTOBER



**Undergrad Mingles** Beit Bars, 19:00 - 01:00

#### **4 OCTOBER**



**Silent Disco** Metric, 20:00 until late



**We Love Wine** h-bar, 19:00 - 21:30

#### **5 OCTOBER**



#### Welcome Fair 🚄 South Kensington Campus & Online, 10:00 - 16:00

**Retro Gaming Night** h-bar, 18:00 - 22:00

**Musical Bingo** FiveSixEight, from 20:00



**6 OCTOBER** 



**CSP Wednesday** Beit Bars, 18:00 - 02:00

#### **7 OCTOBER**



**Laser Tag** Metric, 12:00 - 16:00

#### **Quiz Night** FiveSixEight, 19:30 - 21:30

#### **Cocktails & Comedy** Metric, 19:30 - 23:00

#### **Postgrad Mingle**

h-bar, 19:30 - 23:00

#### **8 OCTOBER**



WELCOME BALL 2021

Beit Bars, 20:00 until late

#### Milkshake Mashup

h-bar, 18:00 - 22:00

#### 9 OCTOBER



**BBQ & Inflatables** Location TBC, 12:00 - 16:00

#### **10 OCTOBER**



Bottomless & Brunch FiveSixEight, 12:00 - 14:00 & 14:30 - 16:30



Check out the full schedule at: imperialcollegeunion.org/whatson

### I HROWBACK

What was Imperial college like in the past? Early issues of FELIX PROVIDE A GLIMPSE INTO STUDENT LIFE FROM DECADES AGO..

#### **WOMEN IN UNION BAR**

LIB AND B(R)AR
Unfortunately for the preservationists, Women's Lib seem to
have gained the upper hand in
the continuing fight for the
domination of the Union Bar.
A short while and Betty Gar-

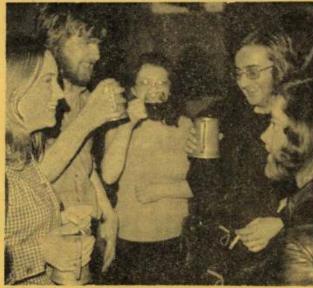
have gained the upper hand in the continuing fight for the domination of the Union Bar.

A short while ago, Betty Garbutt and Co., Dave Hobman (still smarting from his recent expose in Felix) discovered that there was no rule in the ICU Constitution banning women specifically from the Union Bar. This news was quickly conveyed to a clique led by an aggressive youn gal named Betty who decided to exploit the situation.

A newcomer to the IC political scene, Betty is believed to be engaged in 1st year Zoology and resides in Beit.

Betty's plan was to invade the Union Bar every day for a week with a group of 'Women's Lib' people. This plan was inaugurated last Thursday and Betty with such strange, but not unexpected fellow or the cause as Piers Corbyn and Dave Hobman, along with several women and a number of 'Heavies' presented themselves at the Union Bar. The IC lads, sensing trouble, lit the fire in the Bar and retired gracefully. After a successful attempt to extinguish the fire by the Heavies they were ignored and normal activities were resumed in the form of a drinking match between Pete Earl and Hilary.

The next night, Friday, proved to be more interesting. The girls returned again, this time in a random fashion, to the bar, but this time met heavier opposition in the form of a Chap's Club Dinner. Brendan, sensing trouble, gradually persuaded the women to leave in his normal



smooth way. Betty, however, not aware of this, was doused with a pint of beer for not moving, although she had not yet been subjected to Brendan's smooth action, and has been so obsessed with the darts playing that she couldn't have been expected to have noticed anyway. Betty continued playing darts unperturbed until the treatment was repeated. Whereupon the familiar Union Bar chant was initiated and Betty was placed on a table with a yard of beer and given the choice of getting it or them down.

Betty, not to be beaten, took two sips and poured the remainder over a certain Mr. Mark

Woods (RSMU President), who was standing close.

Finally, at this point, our attention moves to one of Betty's male associates, who claims that during the above festivities advances were made to Betty. He was disgusted with the, and we quote, 'horny old perverts present in the Bar.' (Thinks, maybe this is why we keep women out of the Bar).

Dave Amos, the duty officer in the Uinon on Friday night was unfortunately unable to save Betty from the clutches of the Union Bar since he was just about to move into action as she was evicted after the incident with Mr. Woods.

Year 1972 Felix Issue 310

#### MIXING BEIT HALL

Year 1972 Felix Issue 311

questionnaire been sent round to the residents of Beit to find out their reactions to a possible room-by-room mixing of the sexes both in the Old and New hostels. The mixing would be engineered to have about half men and half women on any floor, mixed randomly. The bath and toilet areas would be open to use for both sexes.

This would, we feel, lead to better mixing of the sexes and bring the sexual differences into perspective. People at the moment see the opposite sex too much as sexual objects, and not enough as human beings first and foremost. The only kind of relationship with the opposite sex that is possible, they imagine, is a sexual one - the idea of a platonic relationship does not occur. Thus one would get a more balanced, mature outlook on both sides, and a generally more relaxed atmosphere.

The mixing of the bath and toilet areas is primarily a matter of convenience —any embarrassment felt at first would quickly disappear.

Some structural alterations would have to be be made but these were in the pipeline anyway: e.g. shower doors, not curtains; improvement of kitchen facilities in Old Beit, etc.

The analysis of the questionnaire will be put before the Beit hall residents' committee on May 22nd and they will decide whether to implement the suggested system, which if they agree, could easily be in operation for October 1972.

Year 1976 Felix Issue 409

#### Women's Studies Course

series of talks some of the THIS IS a by some arranged by some of the women in college because we felt a need to examine the reason for women's present position in our society. The intention is to look at the present and past situation of women, to see how it affects us, and possibly to suggest what we can do about it — although this is not our main aim. arranged not our main aim.

The meetings take the form of a talk given by one individual who has made a special study of the subject. pretend to be just want to do not experts, we interests with share our others.

shall be examining We women and work, women in education, in the family, in science and technology, and in the church. We shall also look at the historical aspects education, in the tamily, in science and technology, and in the church. We shall also look at the historical aspects of her role and society, and take place on Wednesday her role in other societies. A full course outline was given in FELIX No. 407.

The series started off with Figure 1.

The series started off with

talk by Dot Griffiths on Socialisation and Male and Female Roles, on Wednesday January 21st. In this interesting talk she outlined experimental biological differences, emphasising the tenuous assumptions and experimental techniques on which they are based. She argued convincingly that the apparent differences are based on social upbringing not on the actual sex of the child, supporting this with examples: one such as the case of children miscategorized as male or female at birth, whose whole behavioural pattern changed on being reclassified. As a result of this talk, a lively discussion ensued; we all thought that the talk had been useful to the and looked forward to the us, and looked forward to the

Fiona McGregor, Physics I.

If you've found interesting articles in the Felix Archive, send us an email and we'll publish it!

### FILMS ON CLIMATE CHANGE BY EVA BORRAS READ THE REVIEWS ON Dage

Edited by: Eva Borras

Deep Dive

### Set Zero:

#### How do we make the film industry sustainable?

Esha Kamran Film Writer

Have you ever thought about how sustainable the film industry is? While many movies have been made about various natural disasters, perhaps the most frightening is the impact the film industry has on climate change. This is according to a recent collaborative report by some of the most influential organisations in media – the British Film Institute, Albert (an organisation 'leading the charge against climate change' in the film and TV industries) and Arup (a British consultancy service). Their 'Screen New Deal' suggests that as we recover from the COVID-19 pandemic, studios should use the opportunity to change the way they create films and TV to be more sustainable, and continue to inspire audiences in the process.

After carrying out a report on the production of 19 big-budget movies, it was estimated that around half

of the CO2 emissions produced in the creation of a predictable successful feature, also referred to as tentpole, came from fuel consumption. The vast majority (70%) of this is due to car journeys. In addition to this, the usage of mains electricity and gas is the second largest cause of carbon emissions. For instance, data analysis for a typical tentpole production showed its total energy consumption

THE VAST MAJORITY (70%) OF FUEL

CONSUMPTION

IS DUE TO CAR

JOURNEYS

roughly equated to the powering of Times Square for 5 days. In addition, the report highlights that for the size of the film industry, it produces 'significant emissions' – more than the manufacturing, clothing or hotel industries that contribute a similar amount of economic activity. However, perhaps this is due to a wider problem - that major corporations are reluctant to change from using fossil fuels to renewables. Still,

much can be done to make film production better for our planet. The report we've looked into is only one of a small handful of studies to show the scale of the problem; in order to tackle the film industry's climate problem more information and real life data is needed.

Taking all this into consideration it is not surprising then that a large section of the 'Screen New Deal' is focused on providing solutions to reduce transport emissions, such as shared transport for crew members - something which BFI and Arup think that can and should be implemented immediately by encouraging individuals in the industry. However some other ideas such as demand prediction, which consists of using transport data to inform decision making, are relatively new and therefore need more development before they can be implemented.

Another novel approach this report puts forward is that of 'Material Passports' – a digital identifier for an object that records information about it, such as its original material source and past specifications. This could allow online stock inventories to be created so that materials can easily be reused, as well as ensuring they are suitable for the task at hand. But even this has many hurdles – the technology

has not been developed yet, and would production studios and manufacturers even be willing to use it if it were? In order for these types of frameworks to actually be successful, the report proposes that the 'Material Passports' be enforced by the third-party creators of these materials themselves, a challenge best undertaken now as we shift away from the darkness of the pandemic.

Being inside our own homes every day during

Photo credits: Envato Elements



lockdowns, we often notice ways that furniture can be rearranged, and spaces changed to better fit our current need – and repurposing buildings in this way is another suggestion the report provides. The film and TV industry has the opportunity to use buildings differently now, such as by creating adaptable buildings – those with only an outer shell and core, no interior walls or divisions – to allow multiple different types of sets to be temporarily constructed there. What about the existing buildings? Those should in fact be prioritised, and retrofitted first rather than constructing new buildings from scratch – a seemingly simple solution, but one that could be difficult to implement if it is not made financially viable to do so.

At the end it all comes down to that: is it going to be profitable to make sustainable changes? The report calls for international cooperation, and for stakeholders to 'align incentives' and agendas to encourage production companies, especially larger ones, to start making the right decisions when it comes to climate change. Doing so will allow smaller studios to follow suit, and allow the flow of content that inspires us both with its artistic flourish and the creative sustainability innovation that went into its production – but this needs to happen now.

What's on?

# BFILONDON FILM FESTIVAL 2021

#### **BFI: London Film Festival**

From the 6th to the 17th October

More than 150 features from all around the world will screen to audiences in cinemas across London. If you want to be the first to watch the newest releases of fiction, documentaries, short films or animations, make sure to check it out on their website!

**FILM** 

### A look at climate change films

#### Film Recommendations

Eva Borras Film Editor

#### **Lowland Kids**

Directed by: Sandra Winther
Starring: Juliette Brunet, Howard Brunet, Chris
Brunet

Did you know that the US will soon have its first climate change refugees? "Lowland Kids" outlines the life of residents living in Isle de Jean Charles, an island off the coast of Louisiana who are planned to be relocated as a community by 2022 due environmental devastation: rising waters causing the town to become flooded.

This documentary short film by Sandra Winther focuses on the Brunets, the last two teenagers on Isle de Jean Charles, their family home for generations. The film consists of beautiful shots from the island as well as one-to-one interviews, making the viewer empathise with their personal stories and how their life will change from now on. Overall, Lowland Kids is a poignant documentary about two teenagers desperate to remain in their home and the memories associated with a certain place where they cannot stay for any longer. It is undeniable that the natural splendour of the island captured using only available light along with the intimacy of the stories told by the teens is what makes "Lowland Kids" an intimate and moving short film that successfully puts human faces to the result of climate change.Lowland kids had its world premiere in 2019 and went on to win several awards, you can stream for free on Vimeo. It is definitely worth the watch if you are looking for a climate change documentary about the human condition, rather than from a scientific point of view.



#### 2040

Directed by: Damon Gameau Starring: Damon Gameau, Eva Lazzaro, Zoë Gameau, Davini Malcolm



After the grand success of his 2014 documentary 'That Sugar Film', Damon Gameau decided to investigate what the future could look like in 2040 if practical solutions to environmental concerns were addressed. As he stated himself, the film 2040 is a letter to his daughter showing proven ways the environment could be taken care of better. With the aim to educate viewers about new approaches to climate change, the film features innovative experts in many fields to draw on their expertise.

This hopeful documentary focuses on five solutions, each covering a different industry and how it impacts the environment: electricity, transportation, agriculture, water and resources in general. What makes 2040 an outstanding educational feature is the fact that for each environmental problem that already exists, Gameau outlines an existing solution that needs to be amplified, rather than lecturing the viewer into theoretical solutions that have not yet been put into effect.

One of the proposed solutions to reduce the greenhouse effect mentioned during the feature is the real-world innovation of turning seaweed into salad. As seaweed is the fastest-growing tree on the planet, if it was grown for food it would absorb thousands of tonnes of carbon dioxide from the atmosphere.

According to Gameau, the aim of 2040 is not to show what we cannot fight against, such as intensified weather, but rather what we can fight for with passion and determination to make the world a better place for the future, leaving an end with a hopeful message.

You can stream 2040 by buying it on Apple iTunes, Google Play Movies, or downloading on YouTube. Additionally, you can create your own personalised action plan for 2040 on the website.

#### WALL-E

Directed by: Andrew Stanton
Starring: Ben Burtt, Elissa Knight, Jeff Garlin,
Fred Willard

ALL-E is a 2008 animated film that is both a source of entertainment for children as well as a description of the worst consequences consumer and materialistic culture in our society can cause in the long run. The film focuses on WALL-E, one of the last trash compactor robots left on planet Earth, who falls in love with another robot, Eve, and their adventures together on a planet where there is no sign of life left. Despite there being hardly any dialogue, the animations undoubtedly capture each character's development as well as the surface message: the need to discover a partner with whom to share life with. Although it might be initially labelled as a child film, WALL-E is a dystopian science-fiction film portraying a dying planet which is not so far away from our current reality.

It would be unfair to not mention one of the key elements of this movie, the music. It becomes such a symbol to the story that the viewer gets captured in the most memorable moments such as when WALL-E sees the galaxy for the first time, giving its protagonist an emotional life which at times makes us forget it is a robot.

In conclusion, WALL-E does a great job of showing us how dark and dull our planet can end up if we don't take any action. There is something very special about the way Stanton (film director) puts together a film that combines both a heart-warming romance between robots and at the same time leaves the viewer with a sense of loneliness as the human characters seem to have no humanity. If you are up for a magical experience, WALL-E is now streaming on Disney+.



Edited by: Rosie Millns

### MUSIC

#### Don't miss the gig - OSLO TWINS @ THE WINDMILL, 4TH OCTOBER

BRISTOL-FORMED DREAM-POP/TRIP-HOP BAND OSLO TWINS TAKE TO

THE WINDMILL, ALONGSIDE MCCABE AND HONEYGLAZE. TICKETS ARE £6 VIA THE WINDMILL WEBSITE.



Photo: Envato Elements

#### EP of the Week

#### Rabbit Wench by Wych Elm

Wych Elm release their long awaited follow up to 2019's Rat Blanket. The gritty 7 track EP details emotional abuse and female oppression, taking inspiration from folklore and the macabre. Wych Elm are back with a new lineup and more energy than ever.

Catch them headlining The Victoria, Dalston on 1st December, or supporting IDLES at Ally Pally 19th January

#### Album of the week

#### **Bright Magic by Public Service Broadcasting**

Public Servce Broadcasting have never shied away from ambitious musical ventures, however their 4th album is their most ambitious yet. The threepart, 11 track album aims to capture the feel of Berlin, and features big characters in the Berlin music scene such as Blixa Bargeld and Andreya Casablanca. The album may contain their biggest hits yet.

Catch them at Brixton Academy on 10th November

#### Felix Recommends... By The Time I Get To Phoenix by Injury Reserve Album



A Disorienting Journey Through Mental Disintegration

Reviewed by Matija Conic Music Writer

Injury Reserve is a hip hop trio I've admired since **L**their breakout debut, *Live from the Dentist Office* - a quirky, jazz-rap record full of ambitious bangers. Their captivating, experimental sound, creative usage of sampling, and potent lyrical themes started hitting even harder on *Floss*, which presented an interesting sonical turnaround with even catchier beats and (in my view) bolder production from Parker Corey that perfectly complements Stepa J Groggs and Ritchie with a T's slick delivery. Their contrasting vocal territories existing on top of Corey's weird but infectious beats made every next Injury Reserve track more fun and exciting.

When Groggs died last year, their most recent album, By The Time I Get To Phoenix, was already nearly done, and dropped posthumously in 2021. The experimental sound on the teaser track 'Knees' struck me as unexpectedly otherworldly and strange, even for Injury Reserve. Groggs rapping about alcoholism and getting joint pains from obesity ("My knees hurt when I grow") over dissonant samples from no other than Black Midi creates an anxiety-inducing, painful and depressing vibe that ultimately amounts to a hugely heart-wrenching track, which, in the context of Groggs' death, provides an insight into his wretched mental state during his final days. To me, the song

feels like one of those terrifying nightmare-ish dreams where you're trying to run away from something but your legs consistently keep failing you, leaving you glued to the **BY THE TIME I** pavement to drown in terror.

I still wasn't sure whether this GET TO PHOENIX was an anomalous track or an overarching vibe until 'Superman That'

MAKES MONEY dropped and I realised the size of the STORE LOOK sonic shift the band was attempting. With Ritchie and Groggs' vocals abrasive sea of sounds featuring

Black Country, New Road samples, the created sense of apocalyptic despair comes out utterly chilling. Ritchie's auto-tuned "Ain't no saving me or you", with an emphasis on the repeating "or you", makes the track feel impersonal; more like a generalised existential



scream, an inevitable end or descent into madness that we are all bound to face, rather than an introspection on any one person's mental state in particular. This loss of sanity trajectory is even scarier when the track is listened to as a follow-up to the opener, 'Outside', which is beautifully tense and claustrophobic. The inclusion of breaths throughout the track, especially at the end, over catchy but unsettling Dot samples, with verses like "You gotta give people enough room to hang themself', generates this feeling of suffocation,

> as if you're meeting your demise in a space capsule that is slowly but surely losing all oxygen.

This pair of tracks is followed by the slightly more harmonic 'SS San Francisco' that nonetheless continues this visceral vibe, with elegant, robotic vocal editing from Corey and a scattered palette of eerie sounds over the main guitar tune. The song reads like a scream of resistance, a desire to break free. being largely drowned out in an RODRIGO ALBUM 'Footwork in a Forest Fire' then counters this with further hopeless

> descent, giving us a repeating, sinister sample, which maintains a life of its own, raging independently from Groggs and Ritchie's rapping and fading into disquieting emptiness by the end, creating the vibe of an unrelenting forest fire. The vocals are mostly

overpowered by the music, which is a recurring theme on this project that adds to this feeling of overwhelming powerlessness, of our subduction to forces outside our control. The most memorable thing on the track, however, is Groggs' loud and fantastic delivery - in fact, this is one of the few tracks where you can unambiguously feel Groggs' presence, in spite

of all the drowning noises. 'Ground Zero', the next track, is where the hopelessness peaks in intensity, with the album toning down on the ear-piercing, abrasive sounds in  $ICAN^{\prime}T$ favour of a more monotonous, but nonetheless equally blood-boiling REMEMBER THE and cacophonous atmosphere that LAST TIME I WAS feels terrifyingly claustrophobic and almost schizophrenic, with Groggs THIS AWESTRUCK and Ritchie competing for verses BYAPIECE OF like devilish voices inside your head.

The album then proceeds into **EXPERIMENTAL** what is undoubtedly my favourite track, 'Top Picks for You' – a song

which completely mentally obliterated me. At its core, the song is the sound of grieving itself, but not in a typical sad, piano-led, tear-jerker, Titanic sort of way this is raw grief translated into sound with little to no attempt to make the track more digestible or appealing, retaining all the messiness and mental disruptiveness

that comes along with the sensation - something captured perfectly by Corey's masterful production. Lyrically, I find this the best track on the album, with Ritchie's verses being more heart-breaking than ever, full of touching recollections of a loved one's habits. My favourite line on the whole project is found on this cut, with Ritchie referencing a metaphorical algorithm that

> is still running, patiently awaiting the person's return as if nothing happened ("Your patterns are still in place and algorithm still in action// just workin' so that you can just// jump right back in"), but the person never jumping back in, leaving behind all these painful reminders. The following track, 'Wild Wild West', feels just as disorienting and paranoid as the rest, with a strange, chaotic ramble about 5G and Will Smith cooperating with the noisy sound to achieve this. 'Postpostpartum' then reads like

a desperate but futile attempt at escaping this mental disintegration, with Ritchie feeling stuck in time. Combined with the message of this track, 'Knees' then strikes me as even more potent than when I first heard it as a single, adding a layer of spatial confinement to this claustrophobia. The only glimpse of light this project

offers us is contained within the closer, with a slightly more hopeful instrumental and verses like "Bye storm" and "Show must go on", but the optimism remains very unconvincing, full of fatigue and despondency, as the nature of all storms is that they come back. The feeling of peace is only ever temporary. The second half of the closer is purely instrumental, almost as if there should have been vocals over it, making Groggs' absence glaringly apparent. I really feel like no production choice could have been a better, more Injury Reserve ode to a passed friend than this.

Overall, I can't remember the last time I was this awestruck by a piece of experimental hip hop, with only JPEGMAFIA's Veteran and Death Grips' Money Store striking me as comparable in terms of boldness, and even these amazing projects inflict nowhere near this much emotional turmoil on their listeners. Frankly, with regards to its noisy sound and experimentation, ByThe Time I Get To Phoenix makes Money Store look like an Olivia Rodrigo record. Injury Reserve's incredible hip hop masterpiece posthumously honours Stepa's constant wish to "make some weird shit", and it does so in the best possible way which is neither pretentious nor shallow. Honestly, after this insane rollercoaster that not only pushes the boundaries of hip hop, but in many ways music itself, I cannot wait to hear what the duo has in store for us next.

### Music and the Climate Emergency

GET TO PHOENIX

MAKES MONEY

LIKE AN OLIVIA

**RODRIGO ALBUM** 

**STORE LOOK** 

Reviewed by Matija Conic Music Writer

ark Twain was once quoted in on, in o, to be in Kentucky when the world ends as they ark Twain was once quoted as saying, "I want are always twenty years behind." Climate-anxiety and anticipatory grief are feelings many of us have begun to grapple with, as we fear time is running out to

mitigate the effects of the climate crisis, many of which have begun to reach close to home. Avoiding succumbing to nihilistic defeatism about climate disaster is tricky, par- BY THE TIME I ticularly when so much of what we hear is bad news, and when individual actions feel futile in the face of catastrophe.

The pressure we are all feeling is becoming reflected in unobvious industries. Take the music industry - I never considered how the arts could contribute to climate change

until I heard about a report based on Massive Attack's touring data by the Tyndall Centre for Climate Change Research on the radio one morning. Since then, I have witnessed conversation about climate change permeate deeper within the music scene. After tuning in to the Ivors Academy's annual lecture on

music and the climate emergency, I realised these conversations had been ongoing for a long time - I just wasn't paying attention.

This year's panel was led by musician Brian Eno, alongside Professor Brian Cox, and climate scientist

Dr Tamsin Edwards. The event was sobering, yet optimistic, best summarised by Edwards' final comment, "Climate change is not something that is won or lost – it is a curve that we can keep bending down to a better future. What is next is up to us, and only future generations will know how we did."

The conversation about the effect of the industry on the planet occur close to home. Eno admits many of his ponderings on what must be done occur whilst he walks through

Hyde Park every morning. "Stop talking about the climate emergency and start talking about the climate opportunity," he says, as he speaks of his house flooding on Christmas Day, and how this brought his community together with long lasting effect. "Climate change is the alibi we can use to change society to be

the kind of world we would like to be in. We all know there are so many things wrong that are very intractable unless you have a huge excuse." He details how many of the actions we must take to avoid climate disaster are actions that should be done regardless of disaster, in order to improve the world. He describes his goal to reform the music industry into a leading example of a sustainable, greened industry.

Despite the facts presented being bleak, the optimism and vision of the panellists provided hope against a background of existential despair – and even more musicians are becoming impassioned about climate activism. "Art has the responsibility to try to enlighten, instead of just entertain," says Matt Berninger, frontman of indie-rock band The National and artists are shouldering this responsibility, raising awareness through song across all genres. Standout climate activist songs include Anohni's satirical "4 Degrees", released back in 2016, Declan McKenna's "Sagittarius A\*" and All Star's "Smash Mouth", however my personal favourite is Weyes Blood's Titanic Rising, an ode to the natural world and a warning to protect and nurture it. The album art features a teenage bedroom underwater, an image which strikes soberingly close to home for me - my hometown is forecast to be

MUSIC

underwater in the next three decades if urgent changes to prevent sea levels rising are not made.

Political songs mean nothing if artists do not utilise their platform and privilege. Take Grimes, for example. Miss Anthropocene is a dystopian record focusing on environmental collapse (with no real substance), which is distasteful at best coming from the partner of one of the richest men in the world. This surface-level, performative activism highlights not only the class disconnect surrounding eco-collapse, but that political songs without activism is meaningless.

Coldplay, The 1975 and U2 are perhaps unlikely pioneers of climate activism within the music industry. Coldplay have refused to do tours that are not carbon neutral, and The 1975 launched the first UK festival powered by sustainably sourced biofuels and solar energy. Massive Attack partnered with the Tyndall Centre for Climate Change Research to study

the effects of touring on the climate, releasing recommendations for venues such as switching to renewable energy, incentivising fans to travel via public transport to gigs, and for tours to be better scheduled to eliminate the need for private jets and minimise flying.

However, individual fans have a role too. Vinyl records are made from crude oil, after all, with only a small percentage being made from recycled plastics. Fans must become actively involved in campaigns, support radical artists, and as the industry changes, be prepared to boycott artists who refuse to adapt to more sustainable practises. There are many musician-led climate activist campaigns, such as the Music Declares Emergency 'No Music on a Dead Planet' campaign, which runs events such as Climate Music Blowout to fundraise for climate activism through live performances. This year's event is happening at EartH, Hackney on 17th October this year, featuring live

performances from bands such as Black Country, New Road, and Porridge Radio (tickets cost £15).

Changing the music industry is not the magic bullet to avoiding climate disaster, but every new policy and tonne of CO2 we can avoid emitting helps protect our future. I think back to Brian Cox's words at the Music and the Climate Emergency lecture: "4 billion years to go from the origin of life to something than can think and feel and write music and do art [...]. We live on a planet that has been stable for 4 billion years. The climate has not changed catastrophically enough to break the chain of life in 4 billion years. As we consider what we are doing to this little world tonight, it is worth bearing that in mind. It is possible that if we eliminate ourselves through inaction or deliberate action, we eliminate all meaning, all complex life, not on a planet, but in a galaxy." Only future generations will know how we did.

#### Felix does BuzzFeed

#### What your go-to pres song says about you

With freshers' week coming up, it is time to start thinking how you will flex your musical superiority when you borrow the aux to queue a song at pres. First impressions, are, of course, important. Do you really want to be remembered as the guy who only played songs from the Shrek 2 soundtrack all night? Here is what your go-to pres song says about your personality.

Disclaimer: All songs may or may not be taken from the Slug @ The Redback spotify playlist.

#### good 4 u -Olivia Rodrigo:

Go on Facebook -> Settings -> Profile and Tagging -> 'Review posts you are tagged in before adding to your profile?' to keep your emo phase pictures hidden when your schoolfriends start to post them on your birthday. On the other hand, showing pictures of 12 year old you with a sidefringe in a Fall Out Boy top going "Can you believe this was me?" is an icebreaker that works every time.

#### Mr Brightside - The Killers:

Forget your star sign, forget your myers-briggs type – is this song the favourite part of your night, or do you audibly groan when it comes on? This song either has you scrambling to the dance floor or has you cringing and rolling your eyes going "it's not even the best song on Hot Fuss!" If you are the first, you are probably introverted 99% of the time until you hear this song. If you are the second, you are a little bit pretentious and would make a great addition to the music team at Felix.

### "I'm really into underground electronic artists" followed by Glue by Bicep:

- Rah do you do drugs? It is so sad that your gahp yah got cancelled because of the pandemic and you had to find yourself selling garms on depop in your Surrey semi-detached house instead. Honestly, you're great on the aux though.

#### **Toxic – Britney Spears**

- You're the sexiest person in the room and you know it. You dance like shit, and if your ego was lower people would definitely make fun of you for it, but you exude so much confidence that it somehow works? You are universally loved.

#### All Star - Smash Mouth

You still think vines are the funniest thing ever. Please stop referencing them. Hurricane tortilla. Are you laughing? Is this funny?

#### Bohemian Rhapsody - Queen

You were a theatre kid.

#### Don't look back in anger - Oasis

You cried when you found out the union didn't sell strongbow dark fruits. What else are you meant to drink when you have your arms around the boys, all of you swaying and screaming the words out in a circle?

#### Yes Sir, I Can Boogie – Baccara

- A bop. A banger. A boogie. You are one of my favourite people.

#### Climate Activism Playlist

Anohni "4 Degrees"

Weyes Blood – underwater bedroom. Hometown

underwater. Sobering

Declan McKenna Zeros

Fugazi, Dead Kennedies, Mick Jones and Joe

Strummer

Depeche Mode forests dying 1983 the landscape

is changing

All Star Smash Mouth ozone layer and melting ice shelf

### INVESTMENT

WHAT'S IN STORE?
BY FRANK SHANG
THE PRESIDENT'S SPEECH

page 2

Edited by: AHMAD DANESH



Investment Society
Imperial College London

Hello, Bonjour, Hola...

Welcome back... it's been a long time!



We're back... in-person, and we can't wait to see you again for the new term ahead!

**Ahmad Danesh** 

Investment Editor | Head of Editorial, ICIS

No more toggling your microphone during a Zoom meeting or having to message a live chatbox in Teams – we're back to doing societies the right way (and the only way, really).

Welcome to Imperial College's Investment Society. Founded in 2015, it has since grown rapidly year-on-year to over 900 members.

Our mission is simple – we're here to teach you the knowledge you need to manage your own investments and find your career in finance and investment.

We're not fussed about whatever background, social status or experience you have in investment or finance because we're here to take care of that and help you develop the skills you'll need for a career in the investment world.

You might have recently come across topics related to Investment, for instance, in January this year when GameStop's share price accelerated to \$483 per share thanks to Reddit's r/wallstreetbets subreddit, and just this month when China's second-largest property developer Evergrande ran into financial issues as it failed to pay off its debts to major lenders – reportedly in the hundreds of billions of dollars (which is nearly 2% of China's GDP).

Our society aims to analyse, discuss and evaluate the causes and effects of what's happening in the world, and additionally give our members the opportunity to get involved and pitch investments of their own (more on that in the next article).

What you're reading here is the Investment Society's own editorial column, inside Felix (the student newspaper of Imperial College). Every week, we'll discuss what is happening in the world of economics and finance whilst trying to apply our own spin and analysis by looking back through historical data that we can get our hands on or through basic mathematical modelling. You can join as a writer through the society's own student-led capital fund,

Queen's Tower Capital (headed up by our Lead Analyst, Oscar Wooding).

This year, we're bringing back our student-curated lecture course – the Securities and Education Certificate (which we like to pun as the SEC). Delivered in-person (fingers crossed), we aim to teach you investment and technical fundamentals for a career in investment. Unlike a lot of Imperial courses this year, there will be (fingers crossed, again) an in-person exam at the end of the SEC so that your learning experience is as authentic as it can be.

There is a lot more that we're doing this year that I wish I could cover in just one page e.g. external speakers, cryptocurrency workshops, associates' programmes... the list can go on!

For the final 120 words I have left (probably 100 by the end of this sentence), I'll explain how you can get involved in our society.

When Freshers' Fair takes place on Tuesday the 5th of October, you'll be able to find our committee at our stall, where you can ask us more about our projects, the SEC and anything you have on your mind.

You can also sign up to our mailing list using your Imperial login credentials on the union's society listing page – you'll be able to find us in the A–Z on the union's main website. Then, click the big "Join" button and you'll be added to the society's mailing list.

You can also find us on our brand new custom website, investmentsoc.com and add us on any of our social media accounts below – just to be up to date!

So, welcome to the Investment Society... we hope you enjoy it and see you soon, in-person!





DO WE HAVE ANY SOCIAL MEDIA ACCOUNTS? WE DO, ACTUALLY - QUITE A FEW! FOLLOW US FOR THE LATEST FROM ICIS.









#### **INVESTMENT**

#### The Presidental Speech

### 'It's an exciting time to be a part of it'



Ahmad recently interviewed the President of the Investment Society, Frank Shang, to introduce the society's plan for the year ahead and what the society has in store for members to participate in.

Ahmad Danesh

Investment Editor | Head of Editorial, ICIS

Hello Frank, good to see you again. First of all, I wanted to ask you what the society's purpose is going to be this year?

Imperial College Investment Society is a hub at Imperial for all things finance and investment related, covering a broad set of themes and topics. From retail investing to hosting speakers from industry to preparation for interviews in investment banking... we cover it all.

We aim to provide a platform for like-minded, ambitious students to network with and educate each other about the exciting world of finance and investing. Seen as one of the most prestigious industries to enter after graduation, the banking and investment industry has a high barrier of entry which we help you to reach!

We are proud to say that many of our past alumni are now in some of the most coveted roles within the industry. Our events and workshops are tailored towards STEM students with an interest in this sector, so we can provide a unique perspective to the industry.

That sounds very good – I liked listening to that. So, societies have a role of hosting events to its members, and I wanted to ask what events are we going to be holding this year, now that we're back in person?

Our autumn schedule is packed with exciting events from bar nights to the Securities Education Certificate (a one-stop course for everything you need in spring week/summer internship interviews), to insights into cryptocurrency investing.

Every Tuesday at 6pm in Huxley 308, we also conduct our weekly asset pitches, hearing the society's research analysts pitch the hottest assets to buy right now (and you can join in too!). Later on in the term, we will also be hosting speakers from industry to talk about their careers and offer insights into their field. Details about our events can be found on our website and Facebook page - follow us on social media to stay on top of it all!

Solid stuff, Frank. Finally, I know that the Investment Society is unique in Imperial in that it is one of the few to offer its own range of programmes to its members. Can you discuss these a bit more, and how members can sign up if they want to get involved?

We encourage all members to sign up to our Securities Education Certificate (more details can be found on our website www.investmentsoc.com).

On top of this, we are currently recruiting Research Analysts for the society's student managed fund: Queen's Tower Capital and Investment Writers for the society's column in the college newspaper, Felix (the one you're reading now).

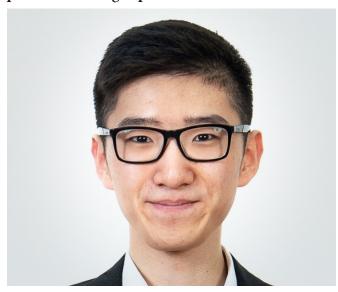
Details about these programmes and application forms can be found on our website. We will be reviewing your applications on a rolling basis so recommend applying as early as possible!

All applicants will be made known of their outcome

All applicants will be made known of their outcome by the 19<sup>th</sup> of October. On Tuesday evenings in Huxley, you will also have the opportunity to vote for the best investment ideas to be invested into Queen's Tower Capital and learn many things plus meet new friends in the process.

We welcome everyone – whether you're completely new to all of this or a seasoned veteran. The team looks forward to seeing you on campus!

Thanks Frank – it definitely will be a year for our members to enjoy. Fingers crossed we can keep it in person for as long as possible.



Frank is a 3rd Year Mathematics Student. He was the Head of Diversity and Inclusion at the society previous to his current role as President. He interned at Morgan Stanley in the Sales and Trading division in the summer of 2021, having previously completed a Spring Week at J.P. Morgan.



#### Welcome to the Investment Society's first ever event listing page!

#### INVESTMENT



Freshers' Fair
Tuesday 5th October 2021 SOUTH KENSINGTON CAMPUS

#### It's back!

Freshers' fair is back on campus, where you'll be able to meet the Investment Society in-person and come have a chat with us about who we are, what we do and how you can sign up to our various programmes, events and our own lecture courses.

Because of how the Student Union operates, there will be only two committee members on our stall at any one time, although you will be able to find our committee walking around campus throughout the fair and Freshers' week, so feel free to approach any of us and ask us any questions you might have!

We encourage you to sign up to our mailing list through the society's Student Union's A-Z listing (see right). Log in using your Imperial credentials and click on the big "Join" button underneath the heading 'Join Investment' (see above). We will also have an iPad and a laptop on our stall for you to sign up to our society directly on the day.



An introductory presentation to the Investment Society and our own QT Capital 12 Oct 2021 18:00 – 20:30

**HUXLEY 308 / 311** 

The Investment Society kicks off the year with an introductory presentation to showcase its projects, courses and programmes that you can get involved in!

You'll be able to find us in Huxley (located in the Computing department) and network with the committee & fellow members.

Join us for good vibes (and the free food, hopefully!) – we hope to see you there!



Demystifying Chinese Investments with Chinese Alpha 19 Oct 2021 18:00 – 20:30 HUXLEY 308 / 311

The Investment Society will collaborate with Chinese Alpha to understand how to invest in Chinese equity. In this event, you will be introduced to Chinese macroeconomics, followed by regulation concerns and its unique VIE structure, and finally understand Chinese portfolio allocations and research methods.

Contact Ethan Cui (qc420@ic.ac.uk, see right) for more information.



An Introduction to AmplifyMe and the Finance Accelerator Simulation 27 Oct 2021

16:00 onwards

**LOCATION TBC** 

Join Amplify on the 27th October to experience the same trading simulations used by the worlds leading banks to enhance your market awareness. Gain hands on experience of both the sell-side and buy-side giving you exposure to life as a market maker as well as an asset manager.

Contact George Spencer (gws19@ic.ac.uk, see right) for more information)



# So much for so little

Great value fares from the nation's Number 1.





### Climate Art - Victoria Xu



Edited by: ZAHRA ABIOLA

### FOOD

**Restaurant Review** 

## Forget SpongeBob! The real Pretty Patty is vegan at Flower Burger

\*\*\*\*



Price range: ££ Deals: 10% off for students on any day Signature dishes: Flower Burger Style: Casual

Reviewed by Zahra Abiola Food Editor

Welcome to South Kensington. Whether you are a fresher new to London or a returning student who, over the last year, has been kept away from their academic home (for better or for worse). Between the museums and Hyde Park, it will be a while before you tire of the spots near campus. But you can't let this be all you can talk about once you leave university. When it comes to London, this is nothing more than a drop in the ocean of the things only a tube journey away. And when you say, "outside", I want you to mean it and not just be talking about sitting on Queen's lawn. And I can guide you on the right path - through food.

In the spirit of sustainability, I am also going to stay on my usual theme of fun, out-of-the-box places to eat out in but also give it a vegan twist. I present you with Flower Burger, an import from Italy and the first fast food restaurant serving vegan and colourful burgers. The colourful selection draws you in with burgers that look like something out of a SpongeBob episode. But you come for the buns and stay for the taste. The menu is all vegan with simple, no-nonsense ingredients. What you see is what you get. They are a stone's throw away from Regents Park, Baker Street and The British Museum so would be a great stop for a refuel after a long day of living your best life exploring. They've even got a 10% off student discount that can be used on any day, so they are all but begging us to make an appearance.

Let's address the multi-coloured elephant in the room. The buns taste like... buns! They achieve the colour spectrum through adding natural extracts to the doughs, but these make no real difference to the flavour palette. It's a missed opportunity to achieve more complex overall flavours through.

complex overall flavours through complementary or contrasting flavours to the patties. However, it also means that you don't have to force yourself through a burger you don't like because you wanted to make sure the bun matched your outfit for Instagram. Another benefit of the unique selling point of the buns is that you know they are fresh – there's nowhere else you're going to find them. You can taste the difference in



Photo credits: Zahra Abiola

The buns are all theatrics but the taste is there to stop it being a gimmick

texture from them being made in house. You get a light and fluffy bread experience.

This is a contrast to the dense, veggie-packed burgers. Usually within a burger joint, the things that differentiates each burger is the toppings and sauces. Here the patty themselves are pulling their weight in this department as well. Let's face it, there are much more grains and vegetables out there for the picking that the meats we find socially acceptable in western society. Flower Burger brings something different to the table by not trying to imitate meat like other well-known vegan patties from the capital. Instead, they keep it simple with a short ingredient list that is easily

accessible from their website for each of their five different burgers. Although they've got everything from broccoli to red peppers to rice to... oat flakes rolled up in these creations, they keep it all natural. They pride themselves on the fact that no preservative or artificial flavours or colours were used in the making of

their rainbow magic. This leads to a healthy dish high is protein and fibre. There is no need to wonder what's in the Krabby Patty secret formula.

It would be nonsensical to compare their patties to the meaty equivalent because they are going for different things. What I can say is that Flower Burger's patties do stand well on their own two feet – even though their source had no feet. They are very filling,

and the toppings and sauces help add to the overall experience and really round out the flavours to bring something different to each burger. I had the Tangy Chickpea which did exactly what it said it would and then some. The flavour was sharp and tart. I wish there were more textures going on between the buns though – maybe something crispy. Everything tasted very fresh and bright, and the patties are grilled instead of fried, so you won't be feeling sluggish after this even though it is fast food. I got the meal deal but I wish they has more interesting options for sides and drinks.

Overall, I think this is a great place for the vegans of Imperial to add to their arsenal where you aren't just an afterthought. Although this place is not going to be converting any omnivores anytime soon, I still think the curiosity from the bright colours will get them through the door so it will work for the whole party. They are also a healthier alternative to other fast-food places you could have chosen from the area that is more conscious of the environment. If we are keeping it real, this might be the only opportunity some of you freshers will get a chance to get a your five-a-day now that you have to fend for yourself. I say give it a try and expand your palette and views from just the Albert Memorial.



### COMMENT

### Philosophy is not dead!

▶ To answer the important questions, Imperial needs to embrace philosophy

#### Francis Rhys Ward Writer



cience without philosophy, facts without Operspective and valuation, cannot save us from havoc and despair. Science gives us knowledge, but only philosophy can give us wisdom."

- Will Durant

What are the most important problems facing humanity today and how should we address them? These are, at heart, philosophical questions: they concern values, and ask how we ought to act. Imperial College London is one of the world's leading universities, and

hence, one of the institutions that we can depend on both to ask, and answer, such questions. Yet, Imperial has no philosophy department, FUELLED BY in fact, it has no substantial humanities departments at all. When contities departments at all. When conducting research on science which PROGRESS, affects humanity, scientists need to be aware of the long-term implica- WE ARE IN A tions of this research.

The university focuses exclusivethe culture is one of productively POWER OVER THE continuing the march of scientific progress. In addition, strong indus- FUTURE try connections naturally focus re-

search efforts on concrete applications. What is often lacking is a carefully considered view of what we ought to do with the machinery of science. This is apparent in the day-to-day lives of many of the researchers and students at Imperial. For students, the workloads are heavy, the deadlines numerous and frequent, and the focus is on training to quickly produce practical results. This is good training for a role in industry but there is less time, under this regime, for reflection on what has been learned, and less encouragement to step back and evaluate one's long-term goals, or the goals of the society which these students will help to shape. The case is similar for researchers, many of whom fall prey to the "publish or perish" game. Pressures to pump-out as many papers as possible naturally lead to those papers' focusing on safe, incremental results; again, there is less room for reflecting upon the purpose of research, advancing riskier but more important directions, or covering new ground.

These issues surrounding the culture of Imperial are, at least in part, a consequence of the minimal humanities and a neglect of philosophical thinking. Culture is inherently a product of the individuals who make up a community. Since the individuals who make up Imperial are, in the vast majority, scientists and engineers, the ideas and norms of the community are technocratic and technosolutionistic. If the Imperial community included more social scientists and philosophers, this would expand its diversity of thought and broaden the range of ideas under discussion. In particular, more philosophical thinking would lead to an appreciation of the big picture questions such as "what is our research for?".

This is not to disparage the brilliant scientists working at Imperial, nor their contributions. The latter are of very real value to the world and help improve the lives of many people (e.g., the work done at Imperial on pandemic risk and climate change is evidently impor-

tant). But the incentives inherent in the culture stifle the abilities of researchers to address the questions that we accept as important and prevent some questions from being

However, at Oxford, Cambridge, and other universities around the world, there is an emerging community of researchers who explicitly look to ask and answer the big ly on science and technology and UNPRECEDENTED questions facing humanity. At the Future of Humanity Institute, the Centre for the Study of Existential Risk, the Stanford Existential Risk Initiative, and a few other institutes

in major universities, multi-disciplinary teams of academics bring the tools of mathematics, philosophy, and social sciences to bear on big-picture questions about humanity and its long-term prospects.

Among these communities there is a growing appreciation for the value of considering humanity's long-term future, and a belief that the present may be one of the most important time-periods in humanity's lifespan. Fuelled by technological progress, we are in a period of unprecedented power over the future. Nuclear missiles, advanced artificial intelligence, and biological weapons are just some of the technologies humanity could use to destroy itself. Yet, our technological progress has not been matched by a corresponding growth in wisdom. We lack the moral and philosophical maturity to protect ourselves, and our future descendants, from irremediable mistakes.

Luckily, it's not too late! Imperial's new initiative "I-X" is a multidisciplinary environment for research across emerging digital technologies which aims to "build a better future". But it has no philosophers! No social scientists! I-X is an opportunity for Imperial to change its culture, to invite a wider range of voices to

the table, and to give genuine philosophical thought to the future of humanity.

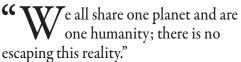
In short, Imperial College London is undoubtedly one of the best scientific institutes in the world. But it is not enough to continuously turn the wheels of science; without a greater appreciation for philosophical questions of the value and purpose of research, we run the risk of driving an accelerating car without stopping to think about the direction in which we are headed.



# Reflecting on climate change - A rural Zimbabwean perspective

Comment editor Khama Gunde sits down with her mum to discuss how climate change has impacted their rural community over the past few decades

Khama Gunde **Comment Editor** 



**OF THAT** 

IT WOULD

**RAIN AND** 

RAIN, BUT

**WE NEVER** 

**HEARD OF** 

A 'FLOOD'

HAPPENING.

- Wangari Maathai The 2021 IPCC climate report made it clear that there is no region on Earth WE NEVER that has been left untouched by climate change. **HEARD** Though, by now, it should be well known that climate change is exacerbating social inequalities within and across countries. For example, the World Bank's 2021 Groundswell report stated that if no actions are taken, approximately 216 million people could become 'internal climate migrants' by 2050. Particularly in Sub-Saharan Africa, East Asia and the

Pacific, and South Asia.

We need to continue listening to the experts, scientists, and activists who have been arduously educating us. However, I am concerned about the people whose voices are not heard, especially

> those who do not have the luxury of viewing the climate crisis as a topic of debate.

As someone who has spent most of their life in the United Kingdom, I have always had access to information regarding GROWING UP. global warming, climate change and environmentalism. So, for me, the impending climate crisis has always been on the periphery. Despite this, I rarely felt a sense of urgency or fear and my lifestyle has hardly been affected. This is a privilege I would not have known had I not immigrated to

> In December 2019 my family and I went on a three-week trip 'back home'. 'Back home' meant an 11-hour flight down to the southern hemisphere, deep into the southern regions of Africa to my birth country of Zimbabwe. The last time I was there was August 2011 and that passage of time meant I had lost the rose-tinted lenses of childish youth. Now, Zimbabwe is a country which has a plethora of social, economic, and political problems, but it was the environmental changes lurking in the background that left me with a lingering feeling of hopelessness.

> The first day we drove past the corn fields on my maternal Grandparents' farm, I immediately noticed the crops were not as lush as I had expected; crops that had the potential to rival my height barely met my waist. In the moment, I brushed my concern aside - instead I attributed what I saw to the fact that my

Grandparents were getting older, and so of course the upkeep had been slipping. Only later, through a conversation with my mother and grandmother did I naively realise that the suffering crops were part of a concerning trend beyond their control.

So, I decided to sit down, interview, and listen to my mother.

#### WHAT WAS THE FARM LIKE IN YOUR YOUTH?

We were used to heavy rains during every rainy season growing up. In fact, we had what we'd call 'bumper harvests' - where we'd harvest huge amounts of crops each year.

We used to sell our produce to the Grain Marketing Board, and we'd have tonnes of sweetcorn for sale every year. At once stage the equivalent of the BBC, the Zimbabwean broadcasting corporation, came to take a video of our farm to show on TV. At that time the land was all green and lush. There was a river that ran along the farm that used to be flowing and full of water all year round.

That river is now non-existent. It has been dry for years, decades.

On rainy seasons, after the rain we would go with buckets to fields parallel to the farm. We would catch fish because they'd be swimming up the river but on the ground. My siblings and I would be catching fish with hands and putting them in buckets.

We would watch migrating birds from Europe as they would follow the rainy belt. The birds would be ahead of rain, so that's how we would know the rains were coming - like when they talk about pressure system on the TV. We used to call them 'stork birds', those white birds. When we saw lots of them we would know rain is com-

So, we used to plant all our crops the same time each year, plough the fields, put seeds in ground, weeks before the rain and the rain would come approximately the same time each year. So, seeds would germinate, and crops would grow until harvest time.

#### WERE THERE DIFFICULT TIMES?

Drought came, I remember, two times. One time was in the 80s and cows died. The cows would try to drink water in marshlands and would get stuck. A few died since there was no grass and not enough water.

We had boreholes – one for irrigation and one for drinking. They have never dried up; they have been there since before I was born. In the 90s, the drinking borehole began depleting, but it still sustained the village community (including teachers and students from my school). People would come to fetch water as early as 4am, because their supplies dried up. By 6am, it would be a little muddy but still drinkable - not contaminated, it has always been safe. To this day that borehole has been sustaining lives.

One drought year there wasn't much to eat, some days we would just have maize meal porridge with sugar. But there would be no food to eat afterschool, maybe a cup of water with two or three spoons of sugar for lunch in the afternoon. So, from the previous years' harvest we had preserved maizemeal which we kept for porridge and sadza (a staple food in Zimbabwe made from maize flour and water). Breakfast would be porridge with sugar and peanut butter, or tea with bread. Supper would be sadza with vegetables or small fish. Beef maybe once a week and chicken was on an occasion, Easter or Christmas.

Vegetables weren't doing so well in the garden, during the drought, they died from the sun, scorched really, and lack of water. Some nights we would roast dry sweetcorn kernels to make maputi (a very popular corn snack). Some nights, dried sweet potatoes. In Zim, the staple food is sadza - with vegetables or meat of any kind.



The African continent shown on a globe

We were lucky, your grandma had planted some sweet potatoes prior to the drought, which sustained us for most supper nights.

#### WHEN DID YOU START NO-TICING CHANGES?

We would have very hot spells during the hot season, then it would rain with thunder and lightning in broad daylight, I knew some who died in those storms. We would get hailstones as well.

One rainy season, the weather started changing – it had become sporadic. It had been hot for quite some weeks after planting seeds and earlier rains. Seeds came out, but rain would come back at certain stages to nourish seedlings. The rain would leave for weeks on end, and so crops suffered. Then it would rain hailstones and heavy rain that shredded the cabbage leaves and tomatoes. So, the ground was soaked but one time it proved to be a miracle, because when the rain went and sun came - we got giant cabbages and tomatoes! It was as if the soil was fertilised. We'd eat cabbage and tomatoes in salad during a season when it didn't rain as much as it should have. It used to rain from September to March. By December we would have sweetcorn to eat, cook, and roast.

From late 90s it has been changing. WAIT, IT WAS SUPPOSED TO BE RAINY WHILE WE WERE ON HOLIDAY? IT WAS 30 DE-**GREES ALMOST EVERY DAY!** 

It would have been pouring, but it was just scorching hot. It used to rain all night, we would wake up and it would be wet outside. There was nothing in the gardens during December 2019.

It would have been muddy and rainy all month. In fact, we used to pray for sun on Christmas.

Nowadays it's just hot all December, with maybe some rain around April, rain is sporadic now.

Around April time we would harvest the crops, this would fit into school holidays each year. In recent years, it pours in March - which is when the produce should be drying. Between September and December, the rain disappears. Sometimes, when the rain appears, it just pours and drowns the crops.

You remember, don't you? That it only rained one time when we were there and, even then, the ground dried up on the same day.

The river that used to run along the farm is gone. When it rains it doesn't fill up.

#### HOW DO ALL THE CHANG-**ES MAKE YOU FEEL?**

It makes me feel sad.

#### HOW HAVE PEOPLE'S LIVES **CHANGED OVER THE YEARS?**

Some fruits don't grow as they used to. Especially the wild fruits that would be in abundance and available for people to pick during droughts.

Also, having three meals a day has been a luxury for some since the 90s. Tea and bread for breakfast is a Western thing. Traditionally we have porridge or sweet potatoes, with tea. Lunch is whatever produce you harvested during the previous year. People keep their food in storage equivalent to a pantry. So, you could have a year's supply of: dried peanuts, dried sweetcorn, dried Round nuts, dried chickpeas, dried soyabeans, sweet and normal potatoes, or pumpkins. This food was supposed to sustain households throughout the dry season and the following year.

My family used to grow loads of crops. Cotton, sunflowers, rice - in fact we used to eat organic brown rice

and process it ourselves. We would also make our own peanut butter.

#### WHY DON'T THEY GROW A **VARIETY ANYMORE?**

Water levels have gone down, the rainy season changed so some crops are not grown anymore. Sekuru (Shona word for Grandfather) loved farming. When I was younger, he set up irrigation pipes and would line up seeds with string on a straight line. He used cows to plough the land and then would go put the seeds in. We used to have equipment to cover the seeds and cultivate the weeds. Irrigation pipes stretched all the way from the fields to the borehole, where someone would be pumping, and on the other end someone would be watering with pipes. That system stopped because the borehole supply started getting low. So, we started relying more on rain but that wasn't reliable for irrigation either.

#### ARE RURAL PEOPLE NOTIC-**ING THESE TRENDS?**

They've noticed but some think that maybe next year they can do something different, or something will change. Even though for some years they've had less produce.

#### **COULD YOU SAY MORE ON** WHAT IT IS LIKE NOW?

There have been floods now, and we never used to have them. Chimanimani had a terrible flood in 2019, during Cyclone Idai. Schools were evacuated and people died.

I remember at the beginning of the millennium there was a terrible flood. If I recall, in 2000 there was a cyclone, I never used to hear of this before. People had their houses washed away and people died. We never heard of that growing up. It would rain and rain, but we never heard of a 'flood' happening. What makes it worse is that most people in rural areas build houses with mud walls and grass rooves. These houses crumbled and were easily washed away.

Another thing, we used to apply cow dung to fertilise the soil, but when the weather started changing and it didn't rain as much, the manure in the ground would 'burn' the crops and damage the produce.

When we went back home, the grass was just dry. Some days, Grandma's pumpkin leaves around the yard would look withered. Growing up, we used to be able to sit in the sun, but we

can't do that anymore - the sun is too hot. When we were there in December you noticed how everyone would sit in the shade, didn't you? Yet growing up you could work in the fields in the heat. In fact, we never used to have temperatures like 30 degrees unless it was drought. The temperature would be 20-something if it was sunny, which was comfortably hot because you could walk and work in that heat.

#### WHAT DO YOU THINK SHOULD BE DONE?

We need to go out there and talk about climate change, make people aware of it. Let them know that what they're facing is actually climate change, let them know what is contributing to it around the globe and in Zim. Zimbabweans need to go out there, talk to and lobby the non-corrupt MPs to try to bring some change. Lots of factors are contributing globally, Zim is obviously contributing too - for example we have many unroadworthy cars, and millions of unfit buses on the roads.

There's not much production there because of the economic situation, so I think the main problem is cars that are not roadworthy. There is no MOT system over there so anything with four wheels can be on the road. That needs to change because anyone and everyone has a car there. The government needs to introduce viable public transport; and renewable sources of energy need to be prioritised. We need trains to connect people between Harare and Marondera instead of hundreds of car trips. There needs to be development in Zim. People are okay getting on with their day-to-day lives, but they may not be aware they're contributing to climate change.

Some people are ignorant, and they aren't thinking about their great grandchildren and future generations. They're just thinking of the now.

My mother's account is sobering but, sadly, millions across the world are facing harsher experiences than she did. They do not get to escape the reality of the climate crisis like some do.



What the 'rainy season' looked like at the farm in December 2019.

THE GREAT COMMUTE Konrad Hohendorf E EFFECT OF COMMUTEING ON

Edited by: AMANDA BARDEN Konrad Hohendorf

### Want to learn to fight? Try Judo

#### THE ANONYMOUS NINJA

You've just watched Kung Fu Panda and you think to yourself, "I want to learn how to fight". What are you going to train in that will best help you reach this goal? This article aims to convince you that Judo gives you everything you want from a martial art!

You want to be able to really fight someone, and as early as possible. Judo is a grappling art, which refers to fighting techniques that involve throws, trips, submissions,

"I WANT TO **LEARN HOW** TO FIGHT"

and almost any other movement apart from strikes. Since all these techniques are designed to operate on an actual body, the first time you learn a judo throw will be throwing another human





being, often a resisting one; likewise, for all of Judo's catalogue of strangles, chokes, and holds. There's simply no way around it. It's a guarantee of genuine combative experience, and it's tested in free sparring every session.

You want to avoid any serious injuries. Judo is able to integrate combat so early on because it knows how to prevent

> injuries. The most fundamental and frequently practiced Judo skill is a breakfall, where your relaxed limbs are used to absorb the impact of a fall, protecting your bones and head. This ability keeps you safe

during sparring and will come in handy when you take a fall in real life too. Many inexperienced people break their wrists in minor accidents because they don't know how to fall properly, but you won't, because you learned how to fall in Judo training!

You want to be able to continue practicing when you go back home. Judo is not only one of the most common martial arts worldwide, it's also an established Olympic sport. No matter where you go, you're likely to find somewhere to train with a qualified coach.

You want a reliable measure of your progress in the art. Judo developed a belt-based ranking system that proved

**YOU COULD** 

**WITHOUT** 

**TIMES WITHIN** 

so useful that many other styles adopted it as well. Your belt in Judo is an outward indication of what PRACTICE 1000 techniques and abilities you have been able to per- ONE SESSION... form in a testing environment. It is a useful tool GETTING INJURED for sparring partners, but also a

motivation for a student to continue learning. The pantheon of Judo techniques is large, and this way every student is guided into learning every



technique in the order which generally comes most naturally.

You want to learn useful skills that can be applied in actual combat. Don't let Judo's interest in avoiding danger fool you into thinking that the art is not useful in a fight. A dangerous technique in Judo refers to one where you lack control over the outcome. Not only is it desirable in combat to be able to tailor the damage you wreak to the goal at hand, it is also important to be able to practice your technique so frequently that you can execute it effortlessly in real life. Take Judo's ippon seoinage (a commonly used

> shoulder throw), which you could practice 1000 times within one session with the same partner without injury. As a normal technique this can be utilised to score wins in competition, and with just a minor increase in intensity of application it can be-

come a deadly technique to use against a merciless assailant. It's a fact that Judo is fundamental in many military martial arts and self-defence systems.

Finally, you want a bit of flair. It's all well and good being able to fight people, but you want to be able to express your personality, and use moves that stretch your creativity. This is where the Judo jacket comes into play to differentiate Judo from other wrestling styles. The extra grip allows for extremely unique throws and strategies, forcing you to consider complex combinations and movements.

If this brief article has convinced you to look around for somewhere to train this beautiful art, look no further! Imperial College is blessed with it's very own Judo club, with a good history of medal wins, and coaching connections to the Budokwai (Europe's oldest Judo establishment). We're super friendly and eager for new members, from any gender, creed, or nationality! Give us a shout for more information (like when you can start training) through the following avenues:

Instagram: @icjudo

Email: judo@imperial.ac.uk

Facebook Group (not the defunct page of the same name): Imperial College Judo

#### **SPORT**

### The great commute

#### Konrad Hohendorf Sport Editor

As you may have noticed by flicking through this addition of Felix, it is themed around being green. Inspired by this, I have decided to do something slightly different in the sports section. I am going to run through some of the different ways in which people commute to college and how they impact you from

a health point of view as well as the environment. There are several ways that students decide to choose to commute college, these being: walk, cycle, bus, tube or Uber.

For ease of comparisons, I will be using the assumption that a student lives two miles away from the South Kensington campus. This allows for the majority of Fulham, Hammersmith, Battersea, and Paddington to be included. From personal experience this should incapsulate most Imperial students. This

equates to a cycle commute of approximately fifteen to twenty minutes and a walk of thirty to forty-five minutes. To commute by tube it would be comparable in time taken to the cycle if there are not too many disruptions on the line.

Uber on the other hand could vary from only ten minutes to over half an hour if there is bad traffic or there are no nearby drivers.

The cheapest option by far is clearly to walk the distance. Cycling comes in second place as every now and then you do need to maintain your bike if you are using it for commuting, and of course there is the initial bike purchase as well

as the extras needed for commuting to consider. As anyone who lives in London knows busses are marginally cheaper than getting the tube and, unless you are sharing one at non-peak times, uber comes in quite a distant last.

As this is the sports section I couldn't not mention the physical side of the commuting choices. Walking and cycling are clearly the only two that offer any real value for you physically; unless passive aggressive eye contact at other commuters on public transport counts. To give an idea of

the relative effort of these two commuting methods, the number of calories burnt for both sit at approximately 150, making a round trip 300 calories burnt. For a student friendly comparison this is approximately one to two pints of beer



IT'S BETTTER

FOR YOU AND

THE PLANET

YOU LIVE ON

depending on what you drink. You can even use the money saved by not using the other options to buy them! However, it should be pointed out that most students who cycle or walk into college wear the clothes that they will be in for the rest of the day and thus are very unlikely to be exerting themselves too much to avoid turning up sweaty and dishevelled for their lectures.

This somewhat minimises the likelihood of getting in any proper workout before or after a day at college unless you are willing to bring a change of clothes.

However, the benefit of walking or cycling into college are not purely the exercise and

money saved. Any student living in the university halls in Paddington, Wilson house, will tell you it is nearly impossible to have a bad day after spending the start of it weaving through hundreds of dogs out on their morning walk through the royal parks. Even more so if done on a beautifully golden autumnal or fresh spring day. Slightly less so, I will admit, if it's raining and grey for the tenth consecutive day... But getting out and seeing London in the fresh air is something Imperial students really should do more of. We spend the majority of the day sat in lecture halls or in our rooms working away at our degrees. This is not good for our physical or mental health. Without

mentioning the scary C word, it is worth pointing out that during pandemics the benefit of commuting in the open air are obvious. London public transport is pretty grubby at the best of times anyway.

Now onto the environmental stuff. It's clear that walking or cycling into university are the most environmentally friend-

ly methods for commuting onto campus. The carbon footprint for walking is purely down to what you fuel yourself with, while for cycling it is marginally greater due to the parts which need replacing every now and then. The next greenest way to commute would be

via the tube, this would produce approximately 30g of CO2e per km per person. It is difficult to get accurate and up to date information on London busses, but it can be safely assumed that they would produce more CO2e than tubes due to their stop start nature. Once again, it's no surprise that using Uber would be the worst; petrol cars produce roughly 180g CO2e and electric cars 60g.

Hopefully this article has made you reconsider how you commute to university and perhaps you are now considering walking or cycling into university. It's better for you and the planet you live on



WEAVING

**THROUGH** 

**HUNDREDS** 

**OF DOGS** 

**OUT ON** 

**MORNING** 

THROUGH

THE ROYAL

**THEIR** 

WALK

**PARKS**