

The Mark



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EDITOR'S NOTE

WRITTEN BY DIYA MANJU 13X

I would like to dedicate this issue of The Mark to a friend of us all, Emad Abusayf.

In my first email to the writers of The Mark, I told them that they had *the creative freedom to do whatever they wanted* with their articles (within reason, of course). And as a result, every issue has been packed with their personalities, their hearts, and unrecognisable enthusiasm towards topics they love. Each article is so purely and unapologetically **them**, which is all I could have ever wanted.

From the moment I met Emad, I realised that he was never going to be anything but himself. He epitomised what it is to be unapologetically yourself, and I will always admire him for that. I vividly remember debating with him in Spanish - my ego could not survive against his intelligence. And our brief text conversations about our shared love for tennis; the forever fight of whether Djokovic or Federer could be named the GOAT.

Emad demonstrated daily the type of authenticity I hoped this magazine would reflect, and has. But beyond The Mark, I aspire to be able to live in my truth as much as he did, and I hope you can all strive to do the same.

In the run-up to Christmas, Year 13 is wild, to say the least. With mocks on the horizon, the great Rock N' Roll show, and coursework deadlines appearing, getting this issue out has not been easy, for any of us here at The Mark

(it's not a company of any sort, I just would like to pretend to be the editor of The New Yorker for a moment).

But as usual, this has not stunted the talent of any contributor to The Mark. Including my own if I do say so myself. My favourite this term has to go to *Snowflakes: The Miniature Myriad*; the complexity I do not understand, but we all love and perhaps even envy the beauty of a snowflake.

As we close this year, I would like to briefly reflect on my experience editing The Mark (this is not the end for The Mark and I yet, however).

I share the same experience as anyone who reads The Mark, making the tedium of rereading articles slightly less exhausting, as I am always learning. But, in writing my personal statement, I realised that The Mark is a platform of recognition; its diversity through writer, topic, and style provides each student with a distinct relatability to the literature. I could elaborate forever on the importance of recognition within literature, especially in the 21st century where the written word should be accessible world-wide, but in this small microcosmic community of The Mark, I hope you have found yourself to be recognised by your interests.

There is so much to learn about yourself through literature, and through reading 13,000-word issues of this magazine, and writing these editor's notes, I have certainly discovered more of myself.

Merry Christmas all, see you next year!

CURRENT AFFAIRS

WRITTEN BY MARCO CAPOLUPO 13X

UK POLITICS

It was **Monday 13th November** when **PM Rishi Sunak announced his second Cabinet reshuffle** since the start of his leadership in October 2022 following Liz Truss' resignation. The move saw the **chaotic exit of Suella Braverman from her role as Home Secretary** and the unexpected entry of **David Cameron, returning to No. 10 this time as Lord Cameron, Foreign Secretary.**



DAVID CAMERON'S RETURN

The Home department has instead been given to **James Cleverly, ex-Foreign Sec.** and a staunch supporter of "stopping the boats," some of the first words he gave in the new role. As Cameron makes his dramatic return and Braverman fades away, albeit with a bang – her accusatory letter to the PM highlighted a supposed "betrayal," condemning his leadership and questioning his integrity – **the Conservative party appears ever more unstable and disunited**, a potentially dangerous position to maintain as a General Elections rapidly approaches. Despite her inflammatory comments and accusation of bias towards the Met Police regarding their stance on limiting protests, **Suella Braverman represented the right-wing section of the**

more liberal Cameron holding one of the four Great Offices of State, and therefore lack representation in the Cabinet.

Whilst bringing back David Cameron may help secure opinions from blue wall Tory voters, this certainly doesn't appear to reaffirm the "change candidate" position Sunak aspires to assume whilst he faces the historical risks of being overshadowed by an ex-PM who many attribute the blame to for the damage Brexit has caused to the country.

On the **15th of November**, the Supreme Court – the UK's highest and final court of appeal – **ruled against the Government in the latest of a series of legal issues with the Rwandan policy that aimed to deport migrants to the small African state**, in the hope of deterring future arrivals to British coasts. The plan was announced in April 2022 and has since faced plenty of backlash, both from legal and non-legal points of view. Initially, the scheme that had planned to send asylum-seekers to Rwanda was halted in June 2022 by the European Court of Human Rights that ordered one of the scheduled flights to be cancelled due to requiring that a man onboard remained in the UK for the duration of his case's hearing. Following the downfall of Johnson and the subsequent administrations of both Truss and Sunak, the legal issues prevailed culminating in June 2023 when the Court of Appeal ruled the plan unlawful due to lack of human rights protections.

This ruling was confirmed by the Supreme Court just days after the resignation of Home Secretary Suella Braverman, based on the insufficient evidence regarding the suitability of Rwanda as a home for asylum seekers who, under international and UK law, must not be returned to their country of origin. The so-far £140m plan has become yet another hurdle in the Government's foreign policy which remains committed to "stopping the boats".

INTERNATIONAL NEWS

On Thursday 30th of November, Henry Kissinger, a controversial figure in US and world politics for the last 50 years, died at the age of 100.



Born into a German-Jewish family in Bavaria and emigrated to New York City in 1938 at the age of 15 due to the Nazis' rise to power, Kissinger, following conscription into the US Army and the end of WWII, attended Harvard University between 1946-1954. He became a leading academic, specialising in nuclear weapons and with the protection of Nelson Rockefeller, later became national security adviser to President Richard Nixon in 1968.

As his influence grew, especially due to praise and coverage from the media, Kissinger replaced William Rogers becoming Secretary of State during Nixon's second term.

Kissinger later turned his attention to the Middle East, as he negotiated deals between Israel, Egypt, and Syria to end conflict in the region, as well as aiming to exclude Russian presence in the area, thus limiting the Soviet Union's influence. Similarly, US efforts to topple the elected president of Chile, Salvador Allende (a left-wing ally of the Kremlin) in 1973, succeeded as general Augusto Pinochet led a coup d'état and established a military junta in the country.

Despite damage following Watergate, Kissinger continued as Secretary of State under Gerald Ford, shifting his interests to Africa where the Angolan Civil War had erupted in 1975.

As anti-communist and communist factions formed (UNITA and MPLA), US ally South Africa and Soviet ally Cuba, supported the two sides respectively, beginning the latest of the Cold War's 'proxy war' and one of its deadliest - by 2002, 800,00 had died and 70,000 became amputees following the heavy use of land mines.

Kissinger's decline since Jimmy Carter's presidency, as well as ideological conflict with Reagan in the 80s regarding relations with the USSR didn't prevent him from advising George W. Bush during the 2003 Iraq War.

The archetype of American patriotism, Kissinger dominated an era, informed by academic studies and wide use of realpolitik, he spread US influence across the world yet is now remembered as only the latest Machiavellian egoist, who only sought personal power and his adoptive country's global hegemony.

ISRAEL-PALESTINE CONFLICT

The 7th October saw conflict once again breaking out in the Middle East, as thousands of rockets were launched into Israel from the **Gaza Strip**, a small 365km² section of land on the southern coast of Israel. Since 2007, the land has been controlled by Hamas, **a terrorist and political organisation whose primary aim is the destruction of Israel and replacement with an Islamic State.**

What made the attacks extraordinary were the hundreds of Hamas militants (part of the 'Izzedine al-Qassam Brigades', the organisation's 30,000 members-strong paramilitary arm) who infiltrated the country, killing 1,200 people and taking 240 hostages (of which 30 children and about half of foreign nationalities) with them back into the Strip, in tunnels that Hamas claim stretch for 500 km below Gaza. Videos of militants storming a music festival went viral, with many immediate reactions regarding how Israeli intelligence could have missed what has turned out to be a long and well planned out series of attacks – training had been ongoing since 2020 in Gaza.

After 3 weeks of air strikes, the Israel Defense Forces (IDF) launched a full-scale ground invasion of the Strip on the 27th October, with PM Netanyahu having called the more than 2.3 million Palestinians (over 1 million are children) living in the area, to leave Gaza city and migrate South towards Egypt, as fears of militants using civilians as 'human shields' grew. However, the Rafah crossing with Egypt remained closed until the 1st of November, when only 335 dual nationals and 76 seriously injured Palestinians were allowed to cross for treatment.

The humanitarian situation in Gaza has been disastrous: only 3 hospitals remain

operational, and are on the brink of collapse in northern Gaza. Until late November, Israel had been blocking all humanitarian aid to the region, claiming fear Hamas using it for military purposes.

A four-day ceasefire began on the 24th November and was later extended, with conflict resuming on Friday 1st December. The deal, brokered by Qatar, saw 102 Israeli hostages released in return for 210 Palestinian prisoners, the majority of which are teenagers (16-18 years old), who had been detained without any charges, trials, or opportunities to defend themselves by Israeli authorities. Whilst efforts by Qatar and Egypt continue, aiming to resume the truce, the entire world watches as destruction escalates in the region. So far, the British Red Cross has reported over 11,000 deaths and 27,000 injured in Gaza alone, with more than 1.7 million people displaced, (the West Bank has also suffered over 167 deaths and nearly 2,500 injured) as numbers continue to rise and war appears inevitable, despite international efforts to bring about a lasting ceasefire.

The UN General Assembly convened for its 10th Emergency Special Session and on the 27th October, passed, with 120 votes, Resolution ES-10/21 which called for an **"immediate and sustained" truce and end of violence against Palestinian civilians in Gaza – 14 countries voted against** (including the US) and **44 abstained** (including the UK and many other EU states).

Shocked by the recent Ukraine war, the entire world witnesses the developing events in the region, with protests and rallies organised across the seven continents in support of both Palestinian civilians and Israeli ones, as fear of a rise in extremism continues to spread.

IS THE WORLD ON AN IRREVERSIBLE PATH TO SELF-DESTRUCTION?

Easy, yes. Of course, it is.

What an incredibly obvious question to ask, when everything that happens seems to point towards an untimely and catastrophic end, as the planet, and its only cities – NYC, LA and SF – get washed away by a 2,000 ft tsunami wave in the latest Hollywood blockbuster release, and the Earth explodes into a galactic fireworks display, with Louis Armstrong's 1967 hit shadowing the long list of credits on the apocalyptic backdrop (available in Martian cinemas this New Year's Eve!)

Difficult though it may seem to think otherwise, **this will not be the year nor the way in which our entire existence will be wiped away** (scientists predict terrestrial absorption into the Sun in approx. 7.5 billion years, though humanity will likely die out long before then). It is undeniable however, that from the average person's point of view, **recent years have appeared ever-more destructive, with both human violence and environmental changes leading to an apparently more unstable society, and an unpredictable future.** This last point is perhaps the fundamental reason for the developing phenomena of anxiety, stress and high levels of discomfort – such as **growing Eco-anxiety, especially in young people** – caused by the lack of stability in our world and therefore, security for the future. Arguably, these symptoms are **further increased by our own sense of powerlessness before such events, generating an even stronger psychic reaction.**

When applied to the masses, it's easy to see the danger of this growing response, and recent examples of mass protesting littered with hues of violent activity, demonstrate how serious the situation is. Unlike some ministers' opinions, **protesting itself isn't the issue** – it's actually **a human right**, enshrined in both UK law (The Human Rights Act 1998) and international law – but why the protests are occurring in the first place. Just thinking of the 2020 George Floyd protests across the US or recent pro-Palestinian marches both in London and across the world, showcases exactly this: in the first case, looting, rioting and general unlawful activities shadowed the importance of the cause behind the protest, culminating in the deployment of the US National Guard and other federal agencies in various cities, whilst the latter saw counter-protests led by far-right extremist groups clash with police forces who made over 120 arrests on one day.

The media has certainly had an impact; with an ever-more interconnected world, events and ideas are easily shared, liked, attacked, and twisted by the plethora of users professing their own 'expertise' as they cower behind a screen and keyboard, constantly commenting everything they see. Though, the vast majority aren't like this, and it would be unjust to label social media as the root cause of the world's problems. In fact, although in modern times it may seem a lot easier to organise a rally, block a motorway or throw a can of beans at a painting, that isn't to say that social unrest has only just been discovered.

It has always existed, a direct cause of wavering support on behalf of the masses for the economic and social system of the times, often culminating in civil wars, especially prior to modern times – from the many civil wars of the Romans to the English Civil War, the French, Bolshevik and American revolutions to the 2003 anti-war protests and contemporary environmental ones, **social unrest has always been at the forefront of history**, often causing incredible changes both in how countries are governed and their ruling class's respective policies.

To an extent, this is comforting – **history has proved how nothing we see today is completely removed from the past, therefore, why worry?** We often say to ourselves that 'history repeats itself', suggesting how humans fail to learn from the mistakes of the past, causing further unnecessary damage and destruction, ultimately leading to widespread death, often of the innocent and weakest. Yet, American author Mark Twain offers an alternative: **"History doesn't repeat itself, but it often rhymes"** and I'd argue there's little to no fault in that. It would be irrational and fundamentally wrong to claim that contemporary events are identical to those of the past. Despite the similarities, the 2020 BLM protests are not the same as those of the 1960s, nor was COVID-19 'mathematically identical' to the Black Death or the Spanish Flu, and even the 1789-1799 French Revolution was different to that 1830 as things had changed substantially (if the rise and fall of one of the largest empires in history in between, wasn't a big enough clue already).

Even homework complaints of current students aren't identical to those of their parents and grandparents before them,

despite the close similarity between them, and they certainly do not equal unequivocal sympathy from one tired generation to another.

However, as Atwood's *The Handmaid's Tale* or Orwell's *1984* teach us, the possibility, no matter how remote, of totalitarianism, loss of rights and therefore loss of identity, remains a significant aspect of fear for many of us.

So how to fight it? As we've established, protesting is certainly an option but perhaps there's an even easier one, for all to take part in: **seek good news**. Unfortunately, we always see less of them, as news, social media (and school newspapers...how ironic) are painted with images, videos and descriptions of destruction and catastrophe (see the title of this piece). Yet they're there, all around us: from firefighters saving a deer on a frozen lake, to NASA scientists turning the light waves detected from an image of the Milky Way into sound, to the recovery of a \$109 million-worth painting by 15th-century master Sandro Botticelli found in Italy, progress is constantly being made in all fields and should be an invitation to rejoice.

Please don't go looking for paintings though, (unless you happen to 'unlawfully' own a suspiciously beautiful one) or help a rhino give birth if you don't know how to. **'Good news' such as these can be constantly created in your everyday life, and sometimes, if they're really special, they may end up in local, national, or even international news.** And maybe someday, someone might end up watching a docufilm about them (in IMAX) on Mars.

HOLIDAY FLICKS

WRITTEN BY JACOB MEINERTZHAGEN-WILSON 13X

FILM OF THE TERM:
NOTTING HILL

TV SHOW OF THE TERM:
AVATAR: THE LAST
AIRBENDER

ACTOR OF THE TERM:
EDON MOSS-BACHRACH

ACTRESS OF THE TERM:
RACHEL ZEGLER

DIRECTOR OF THE
MONTH:
JONATHAN GLAZER

WHAT IS THE BEST CHRISTMAS
FILM?

**WARNING: CONTAINS SPOILERS FOR THE MUPPET
CHRISTMAS CAROL**

Across decades, people have been pondering and arguing over this one question: **what is the best Christmas film?** However, for me, there's a very clear answer. Here, I will produce concrete evidence as to why *The Muppet Christmas Carol* is the best Christmas film ever made, and will continue to be forever.



THE MUPPET CHRISTMAS CAROL

Between the mo-cap nightmare of *The Polar Express* and the overrated, unfunny mess that is *Home Alone 3*, *The Muppet Christmas Carol* stands out to me as unapologetically sincere. I mean, come on, you can't tell me you **didn't** bawl your eyes out when Tiny Tim (in small Kermit form) died. Combining the classic, rich formula of the Muppets with a masterful performance from Michael Caine, the modern retelling of the famous Dickens novel is perfect in every sense – every time Kermit steps his little green legs onto the screen, or Miss Piggy delivers a sassy one-liner, a massive smile can't help but grow on my face. Not only making an incredible piece of literature accessible to modern society but retelling the story in an immersive, jovial way that allows even small children to follow the plot along is what makes this film timeless, and objectively **the best Christmas film to date.** (As the editor, I wholeheartedly disagree ... *Home Alone* for the win!)

IF YOU WISH TO WATCH ANY FILM OR TV SHOW MENTIONED IN THIS ARTICLE, PLEASE TAKE NOTE OF THE AGE RATING PROVIDED WITH EACH TO ENSURE IT IS SUITABLE FOR YOU.

'DIE HARD'LY A CHRISTMAS FILM?

WARNING: CONTAINS SPOILERS FOR DIE HARD

'Die Hard' is undeniably an incredible film – Alan Rickman's acting debut, Bruce Willis showing off his classic "macho hero" role, all packed into a thrilling, action-packed 131 minutes. But the question that's on everyone's minds are: **is it a Christmas film?**



BRUCE WILLIS AS JOHN McCLANE

Before we get to John McClane's white vest barefoot adventure, we need to ask a more pressing question: **what makes a Christmas movie, a Christmas movie?** After scouring the internet countless for answers, I believe I have composed a checklist that proves whether a film is a Christmas film or not.

First on the list, funnily enough, **the film must be set during Christmas time.** At the very least, set in late November or December. This means the **entire film** though, so films like 'Harry Potter' and 'Toy Story' where there are small snippets during Christmas do not count.

Second on the list, **Christmas must be central to the plot.** It's all well and good the film being set during December, but if there's no reference to the holiday, or it takes a side-line, then can you really call it a Christmas film?

It's like making a horror movie about Halloween, but it's set on a dreary October 2nd and the monster of the film is a tax collector – it's drab, it's boring, and it's a waste of our time.

The last thing on the list, **the film must encapsulate at least ONE traditional Christmas theme.** This is a vast list, ranging from family, to love, to kindness: essentially learning "the true meaning of Christmas" in some shape or form.

Using this incredibly accurate, completely objective Christmas list checklist, I can, without a doubt, confirm that 'Die Hard' **IS** in fact a Christmas film. The entire film takes place entirely on Christmas Eve (tick number one). The entire plot begins at a **Christmas party** held in Holly's workplace – the film does not ignore Christmas at all (tick number two).

Finally, the theme of family and forgiveness takes centre stage throughout the entire film. His entire motive for being in the Nakatomi Tower in the first place is to reconcile with Holly (his wife), demonstrating not only his love for his family, but also his desire to be forgiven (tick number three).



ALAN RICKMAN & BONNIE BEDELIA AS HANS GRUBER & HOLLY GENNARO

To conclude, while I don't think this would be a good choice to watch with your nan on Christmas Day, 'Die Hard' is still a Christmas film – nothing says festive like watching Alan Rickman plummet 490 feet to his death.

14 YEARS AGO... AVATAR WAS RELEASED

There's no denying that James Cameron's *Avatar* is revolutionary – it became the highest-grossing movie in history a mere 41 days after its release, still holding the title of "Highest Grossing Movie" to this day. *Avatar* was ground-breaking for its time, most notably due to its extensive use of motion capture, pushing the boundaries for the amazing "mo-cap" technology that we see in film today.



Motion capture refers to the process where an actor wearing a suit coated in sensors, performs scenes, their actions being recorded by motion-tracking cameras. Their movement is transferred into data, which is mapped onto a 3D model, meaning the model performs the same actions as the actor. Because of this, the filmmakers can make characters such as the Na'vi in *Avatar* move in impressively realistic ways, given that their models are based on the real actors that play them. This adds an extra layer of immersion into the film, engrossing the viewer thanks to the fluid movement of the characters. Despite being used in movies for about 20 years prior to *Avatar* (one of the first being *Star Wars: The Phantom Menace* in the form of 'Jar Jar Binks'), I would argue that James Cameron's imaginative, hyper-realistic use of motion capture is the most important movie that caused the extensive use of mo-cap that we see in modern film.

No other film demonstrates the vast capabilities of mo-cap to the extent *Avatar* does – without out, I doubt that we would see such an impressive use of it in today's cinemas – The Hulk in *Avengers: Endgame*, Thanos in *Avengers: Infinity War* and the stone-trolls from *The Hobbit: An Unexpected Journey* to name a few would be much less impressive if James Cameron's *Avatar* did not pave the way of motion capture in film.

WHAT'S NEW?

NAPOLEON (15)

"An epic detailing the checkered rise and fall of French Emperor Napoleon Bonaparte, and his relentless journey to power."



SCOTT PILGRIM TAKES OFF (12)

"After meeting the woman of his dreams, a charming musician finds himself contending with an army of her ex-boyfriends."



DRAMA DIGEST:

THE MYSTERY BEHIND THEATRE

WRITTEN BY EVIE THOMPSON 13X

PLAY OF THE TERM: LOVESONG

ACTOR OF THE TERM: JONATHAN PRYCE LEAR in *KING LEAR*

ACTRESS OF THE TERM: HANNAH WADDINGHAM THE WITCH in *INTO THE WOODS*

DIRECTOR OF THE TERM: PHILLIP RIDLEY *TARANTULA*

There has been many successes and difficulties within theatre that have never really been published. This is a serious flaw in our society as we are not giving recognition to the dedicated people who create these productions. While sitting at my desk thinking about what I was going to write in this term's issue, I watched one of my favourite musicals (*Les Misérables*) and thought how popular the musical is and how hard hitting a piece of theatre can be. However, through many of these articles I have written, I have focused on the problems theatre's face but the achievements some productions have had are fascinating and I think we all need to know about them.

When reflecting on these productions across the years we can really see the progression, from performing at The Globe to massive theatres across the world, theatre has expanded rapidly, exploring creativity and expression within our society. From the first production being performed in 5th century at the Theatre of Dionysus to *The Lion King* in Broadway grossing 1.8 billion dollars we have seen a real improvement in theatre with people understanding its importance. In this term's article, I will be taking it back a few years and discussing the early impact theatre had and how it links to today.



IF YOU WISH TO WATCH ANY PLAY OR MUSICAL MENTIONED IN THIS ARTICLE, PLEASE TAKE NOTE OF THE AGE RATING TO ENSURE IT IS SUITABLE FOR YOU.

THE HISTORY OF THEATRE

The **earliest origins of drama are to be found in Athens** where ancient hymns, called dithyrambs, were sung in honour of the god Dionysus. These hymns were later adapted for choral processions in which participants would dress up in costumes and masks. Eventually, certain members of the chorus evolved to take special roles within the procession, but they were not yet actors in the way we would understand it. That development came later in the 6th century BC, when the tyrant Pisistratus, who then ruled the city, established a series of new public festivals. One of these, the 'City Dionysia', a festival of entertainment held in honour of the god Dionysus, **featured competitions in music, singing, dance and poetry.**



THEATRE OF DIONYSUS

Early in the 10th Century, theatre can be traced back to performances by church ministers, eventually, these performances would start travelling from town to town and later public performances would become more common. Although, **these performances came to a halt when Henry VIII came to power.** Theatre would not see a large comeback until the reign of Queen Elizabeth I. Being a huge advocate of the works of William Shakespeare, his theatre company would often perform for her. By 1576, the first permanent theatre built solely for theatrical performances simply titled 'The Theatre' was built in Shoreditch.

In 1599, one of the most iconic theatres in the UK, The Globe was built but it wasn't too much longer before in 1642, the theatre would find itself closed again due to The Puritans who were under the leadership of Oliver Cromwell. They even destroyed The Globe too, but the theatre would not stay down for long.

With the reign of King Charles II came the great rebirth of the art form, key theatres such as Theatre Royal were built and a royal decree demanded that female characters would only be played by female actors, ushering in an age of influential actresses.

The Apollo, The Garrick and The Lyric Theatre are examples of how we got to the thriving theatre business that we still see today. It has spread from its beginnings in the capital and has spread throughout the UK.

Each city has a theatre, where classic stories and new ones are brought to life by dedicated actors. **These stories find their origins as far back as Shakespeare's classic plays, where story elements and even full plots have been adapted into movies too.** There's no doubt that the stories found originally on stage have transcended the audience and reached into the wider culture.

Productions that started in the 1900s or even earlier are still going to this day such as *The Mousetrap* and *Les Misérables* and pretty much any of Shakespeare's works. **Going to the theatre is an opportunity to see some of the best actors around perfecting their craft, and delivering stunning performances that stay with you for a long time.**

WHAT'S NEW?

ELF THE MUSICAL

As we are approaching Christmas, I thought it was right to talk about one of the theatre productions that is really attracting audiences at this time of year and that is *Elf the Musical*. Originally a movie, this musical has incorporated the comedic element and added a touch of music to immerse audiences of all ages. Based on the hit Will Ferrell holiday classic, the hit Broadway, and West End show *Elf the Musical* returns to London's Dominion Theatre for a limited 8-week season, just in time for Christmas.



THE STORY GOES...

When Buddy, a young orphan child, mistakenly crawls into Santa's sack of toys one Christmas Eve - his life changes forever. Buddy is raised by Santa's elves at the North Pole and somehow, despite his enormous size and poor toy-making skills, it takes him a long time to realise just why he doesn't quite seem to fit in. Once he learns the truth, Buddy embarks on a journey to New York City to find the human father he never knew existed and help the Big Apple rediscover the meaning of Christmas.

Heart-warming and hilarious, *Elf* has proved to be a delightful addition to the holiday theatre season since its first performance on Broadway in November 2010 and is now becoming a holiday tradition. In the West End, *Elf the Musical* opened at the Dominion Theatre in 2015, and was the Dominion's fastest-selling show since 1929! *Elf* was revived at the Dominion Theatre in 2022 to rave reviews and is scheduled to return for a second run beginning November 15, 2023. The songs of *Elf the Musical* capture the spirit of the holiday season and fill The Dominion with joy, the upbeat and catchy numbers from composer-lyricist duo Matthew Sklar and Chad Beguelin include 'A Christmas Song' and 'Sparklejollytwinklejingley'. The songs are sure to get you excited for Christmas!

THE WITCHES

The National Theatre and the Roald Dahl Story Company have staged a brand-new musical adaptation of *The Witches*. Featuring book and lyrics by Olivier Award-winner Lucy Kirkwood and music and lyrics by Tony Award-nominee Dave Malloy. It received a glowing review from *WhatsOnStage* last month being described as "resolutely original and unashamedly fun." The classic tale, first published in 1983, follows a young boy who takes on a gaggle of witches but is transformed into a mouse in the process. If the script channels Dahl's linguistic agility and imagination, it cleans up his darkness. The witches are more comical than abominable.

BOOKS THAT SLEIGH

WRITTEN BY ANNA WHEELER 13X

BOOK OF THE TERM: SALT HOUSES

HALA ALYAN

POEM OF THE TERM: MINSTRELS

WILLIAM WORDSWORTH

AUTHOR OF THE TERM: ALICE OSEMAN

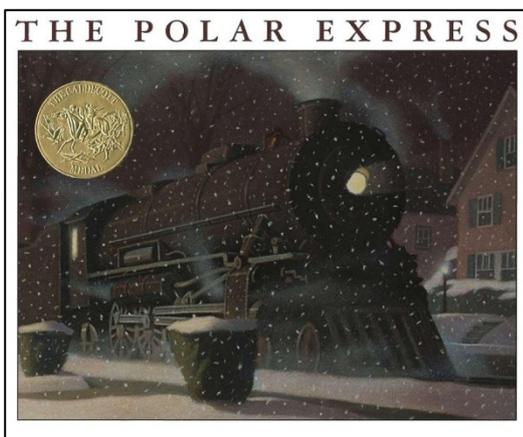
It's the perfect time for stocking up on books for the (ho ho-) holidays—here are a few festive stories you're guaranteed to have snow much fun with!

CLASSICS

THE POLAR EXPRESS by Chris Van Allsburg

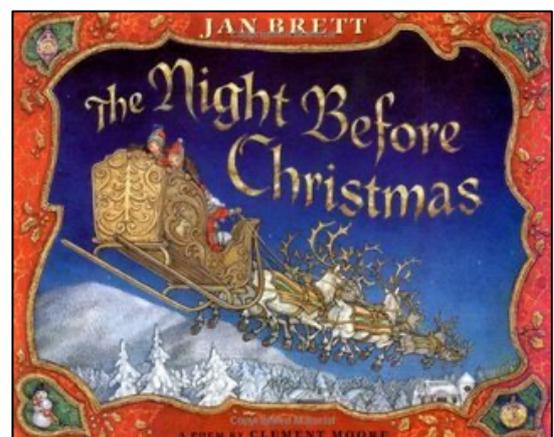
Seeing is believing, but sometimes the most real things in the world are the things we can't see.

Late one Christmas Eve after the town has gone to sleep, the boy boards the mysterious train that waits for him: the Polar Express bound for the North Pole. When he arrives, Santa offers the boy any gift he desires. The boy modestly asks for one bell from the harness of the reindeer. The gift is granted. On the way home the bell is lost. On Christmas morning, the boy finds the bell under the tree. The mother of the boy admires the bell, but laments that it is broken—for you see, only believers can hear the sound of the bell.



THE NIGHT BEFORE CHRISTMAS, a poem by Clement Clarke Moore, illustrated by Jan Brett

Clement C. Moore's well known classic Christmas story of the magic of St. Nicholas' visit on Christmas Eve night. An important Christmas tradition loved by many and passed on by generations with a slight postmodern twist on the visuals of the story many have grown to love and cherish through the decades and will continue to do so for many more to come.



SOMETHING NEW

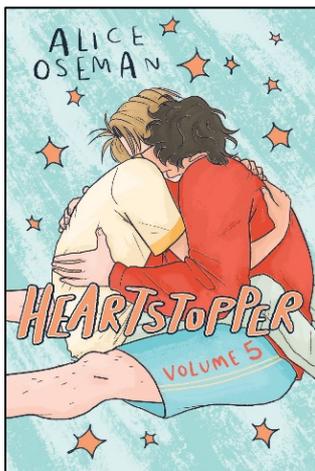
TWAS THE NIGHT BEFORE CHRISTMAS by Adam Kay with illustrations by Stephanie von Reiswitz

Twas The Nightshift Before Christmas is the hilarious, poignant, and entertaining story of the life of a junior doctor at the most challenging time of the year. With twenty-five tales of intriguing, shocking and incredible Christmas incidents, the British public will finally appreciate the sacrifices made and the challenges faced by the unsung



ALL NEW RELEASES

Great to spend your Christmas book vouchers on or to buy for someone else as a last-minute present, these books were all released in December this year and have received glowing reviews so far!



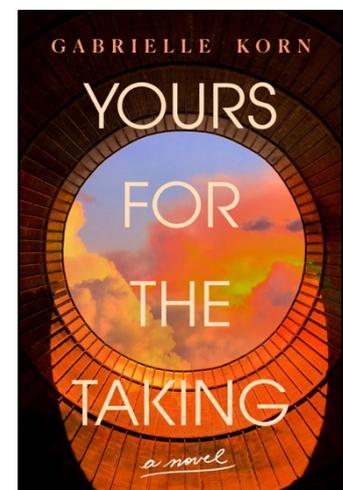
HEARTSTOPPER: VOLUME FIVE by Alice Oseman

Alice Oseman (author of the term who grew up in Medway!) recently released the fifth and final installment of her famous *Heartstopper* series of graphic novels.

Nick and Charlie are very much in love. They've finally said those three little words, and Charlie has almost persuaded his mum to let him sleep over at Nick's house ... But with Nick going off to university next year, is everything about to change?

YOURS FOR THE TAKING by Gabrielle Korn

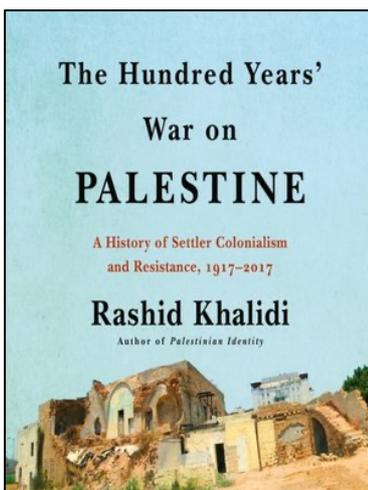
The year is 2050. Ava and her girlfriend live in what's left of Brooklyn, and though they love each other, it's hard to find happiness while the effects of climate change rapidly eclipse their world. Soon, it won't be safe outside at all. The only people guaranteed survival are the ones whose applications are accepted to The Inside Project, a series of weather-safe, city-sized structures around the world.



LITERATURE & CURRENT AFFAIRS

Regardless of how we feel about the Israel-Palestine conflict, when forming opinions, it is important to keep in mind the lived, human experiences of those in the region. Amidst the suffering and mass death of Palestinians, it is too easy to reduce them to a political component of the war or statistics in a history book, but we must remember that they are people, with their own individual lives and a rich culture. **Reading allows us to do this, and all the books I will recommend here focus on realistic stories (some with autobiographical elements), beautiful representations of Palestinian culture, and factual accounts of historical events.**

As always with literature, even non-fiction, we cannot assume impartiality or objectivity, as all books are written by people, with their own perspectives and opinions. **Do not rely on any single one of these books, without first fact-checking and exploring other views, to decide how you feel about the conflict.**



THE HUNDRED YEARS' WAR ON PALESTINE RASHIDI I. KHALIDI

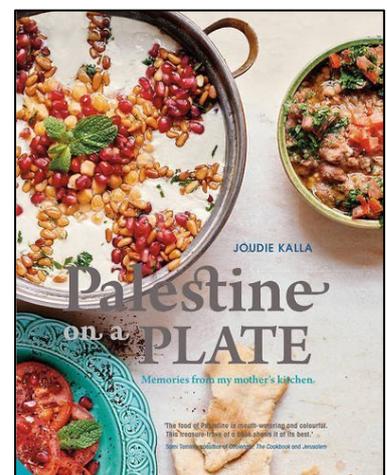
A NON-FICTION HISTORY BOOK

This is one of the many non-fiction books you could read to learn about Israel and Palestine. It focuses on the last 100 years and is written from a pro-Palestinian perspective. Other books might put more emphasis on recent or historical events or explore different viewpoints, so don't limit yourself to just one book.

PALESTINE ON A PLATE: MEMORIES FROM MY MOTHER'S KITCHEN JOUIDIE KALLA

A RECIPE BOOK

Food is an important part of culture, and the descriptions of food in *Salt Houses* made me want to try some Palestinian cuisine. Try cooking some new dishes with a recipe book like this.

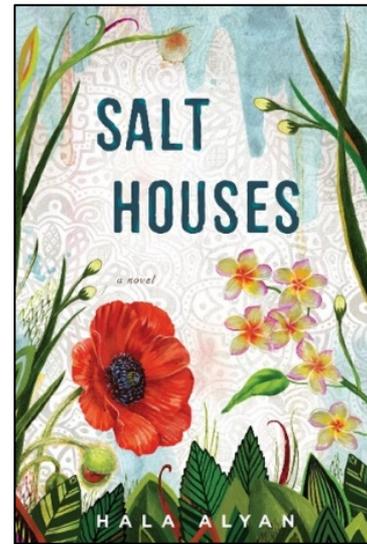


SALT HOUSES

HALA ALYAN

Hala Alyan's *Salt Houses* tells a moving story of four generations of a Palestinian family. Salma, mother of Mustafa, Alia and Widad, is terrorised into fleeing Jaffa with her family and settling in Nablus, and then must flee once more due to the Six-Day War, to Kuwait, in the wake of the devastating loss of a family member, which will haunt the family for generations. Unsurprisingly, the war in Palestine isn't the only war that will force Salma and her children to take refuge abroad. After the invasions and occupations of Lebanon and Kuwait, Alia, her children and even grandchildren must leave once more, to Jordan, Paris, and the US.

It would be a waste of words to attempt emotional impact of the depictions of war and suffering in this book, so instead I will recommend *Salt Houses* for its diverse set of characters. Each chapter is named after a character, from whose perspective that chapter is written, and all but a few of the chapters have the names of female characters. *Salt Houses* is a book about family, and talks not just about the horrors of war but also of the ups and downs of family life. Most of the characters are indeed female (A level English students might remember Hosseini's description in *The Kite Runner* of fathers as a 'rare commodity' in times of war), and each one is uniquely constructed. *Salt Houses* is also a coming-of-age novel: Alyan writes poignantly and with nuance about growing up. Every teenage character has a different story, from Riham feeling like an outsider with her cousins and finding religion in her adolescence,



, to Souad's anger at the world and desire to carve out her own identity, moving to Paris, and Abdullah's worrying drift towards religious extremism, fuelled by seeing the human impact of war and oppression in his father's makeshift hospital. Readers follow Alia, her children, and grandchildren from childhood to adulthood and even old age. In the final part of the book, we witness one of the main characters' deteriorations into Alzheimer's, with a chapter written from her perspective in a choppy and confusing form, that attempts to mimic how it feels to have dementia. As someone who has experienced a family member's struggle with the disease, I can attest to how accurate and touching Alyan's portrayal of it is.

'She asked for her husband to live. She knew it was selfish, knew his life with its morphine and bloody handkerchiefs wasn't one he wanted to keep. More than once he cried out into the night, "They took my home, they took my lungs. Kill me, kill me."'

MINSTRELS

WILLIAM WORDSWORTH

WRITTEN BY LUCAS PATTENDEN 13R

As the Christmas season begins to take over our lives and winter sets in, a poem by **William Wordsworth** is sure to enhance everything about this festive holiday. Especially if you're a typical Christmas Grinch, this should set your mood right...

This short and simple narrative poem describes a brief moment in the Christmas period **when strolling players are performing at the door of the 'voice' of the poem.**

The poem was probably inspired by an actual event since it was a widespread Christmas tradition of village musicians, usually members of the parish church choir, to stroll from door to door in rural areas during the Christmas period, providing musical entertainment and offering good wishes to householders. The local gentry (people of high social class) sometimes paid gratuities for the performances of the musicians.

Wordsworth's reputation as the **Great Nature Poet** is exemplified in the description of the environment in which the minstrels are performing. It is a very cold and still night, in which **the lustre of the evergreen laurel bushes around the cottage is intensified by moonlight.**

The **evocative imagery of the poem** conjures mental pictures of a cloudless frosty night and the deep silence of the countryside broken only by the screeching of fiddles and resonating voices ringing out Christmas cheer in the clear cold air.

So, as we begin to light up our streets, decorate our trees and do lots of Christmas revision (...), let us appreciate the beautiful traditions that resonate with this festive holiday and do our best to replicate the joy felt by the minstrels in their joyous traditions.

Merry Christmas everyone!

The minstrels played their Christmas tune
To-night beneath my cottage-eaves;
While, smitten by a lofty moon,
The encircling laurels, thick with leaves,
Gave back a rich and dazzling sheen,
That overpowered their natural green.

Through hill and valley every breeze
Had sunk to rest with folded wings:
Keen was the air, but could not freeze,
Nor check, the music of the strings;
So stout and hardy were the band
That scraped the chords with strenuous hand.

And who but listened?—till was paid
Respect to every inmate's claim,
The greeting given, the music played
In honour of each household name,
Duly pronounced with lusty call,
And "Merry Christmas" wished to all.

THE MARK ON MUSIC

WRITTEN BY EDWARD RHODES 13F

ARTIST OF THE YEAR:

RADIOHEAD

SONG OF THE TERM:

DEEP DOWN BODY THRUST

N.E.R.D., PHARRELL WILLIAMS

ALBUM OF THE TERM:

(honourable mention)

BECAUSE THE INTERNET

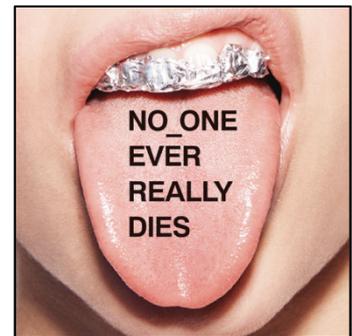
ALBUM OF THE TERM:

ORACULAR SPECTACULAR

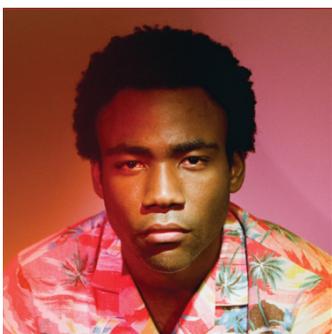
DEEP DOWN BODY THRUST

(please excuse the title)

Pharrell is a genius. So, it would be wrong to not praise him at least once in the limited time I have as the writer of the music section. This is not only getting song of the month because it has been in my rotation quite regularly recently, but the actual **meaning resonates with me**, and I am sure many Year 13s at this time. The track is upbeat. However, the lyrics are far more reflective on life and the fast-paced nature of it, which is so relatable for us. Times are difficult at the moment so I like to think **this song offers a perspective that shows us that while life is often tough and overwhelming, when reflected on, it can be an upbeat, energising education that cultivates further growth in our minds.**



BECAUSE THE INTERNET



This album came out 10 years ago as of the 10th of December (when I am writing this) and I will stop myself from waffling about it too much as I fear the editor already has too much to look over in this section. This album is exceptionally good, listen to it. When I realised that it came out 10 years ago this December, I could not help but include it. Without going into too much detail it holds **nostalgic value** much like the *Oracular Spectacular*. **It reminds me of sunny holidays and the laid-back nature of them.** The use of a variety of synthesisers adds a light feeling to the tracks and really transports you to a simpler time.

RADIOHEAD

In last year's Spotify wrapped, my top songs and artists were dominated by hip-hop. That was no surprise[s] (pun very much so intended) as that was the trend for the previous five years (to clarify I do listen to other music just a lot of it is hip-hop, I wouldn't have this job otherwise). In an odd turn of events, **my stats this year were invaded by Radiohead**. But I would be lying if I said I wasn't expecting this.



Back in February, I came across their song *Everything in its right place* from their 2000 album *Kid A*, after having never listened to them properly before. I had immediate goosebumps. The synth on that song is addictive. And surprise surprise, that very song was my most listened to of 2023, I listened to it ninety times to be exact. I remember speaking to my cousin about my newly found love for Radiohead and she said, **"They are an acquired taste but once you're into it you won't go back"**. She wasn't wrong. I went further into their discography and further appreciated *Kid A* as a whole while also developing a love for their other albums such as *In Rainbows*. I have made this issue's Artist of the Term an artist of the year as this will be the last issue of 2023 and Radiohead deserve it 100%.

As much as they haven't made an impact on current music, in my own personal life, they have made a big impact on my 2023. The reason they have been chosen is not just out of appreciation for their music but because they symbolise something. As I said my music taste is very much dominated by hip-hop, this has been the first-time music from a different genre has become one of my most listened to artists. It just shows that **you must keep an open mind when approaching new things**, not just music, because **your own comfort may be getting in the way of you enjoying something you have no idea you like**.

ORACULAR SPECTACULAR

This album came out 16 years ago but still holds such relevance today.

There is a running theme with this issue's favourites selection and that is **reflection**. This album holds a lot of nostalgia for the sixth formers and maybe even some of the younger years (and maybe EVEN some of the older readers). MGMT often get branded as a one hit wonder but not many 'one hit wonders' have three hits at the same time. Also, the fact that they went on to see further commercial success with the 2018 release of *Little Dark Age* nullifies this statement. A very good album I could write a whole separate section on but for the sake of the editor's sanity I will refrain from doing so. The big three, as they have been named, are *Time to Pretend*, *Electric Feel* and *Kids*. They have dominated the airways ever since their release in 2007 and many may recognise the songs from an array of adverts.

Personally, I hold lots of nostalgia with this album as many of my first years of hearing popular music included these songs. Without a doubt it brings me back to easier times in the early stages of my primary school life where my biggest concern was not getting the same toy as last time in my happy meal. The irony of me associating these songs with a simpler time is that these songs are made about the artists own reflections on childhood and how they miss the simpler times.



So, for me to associate the song now finally with what it was initially trying to convey is a big full circle moment. This full circle moment has come at a very important time as I and many others send away their applications for jobs, universities, or apprenticeships while also trying to revise for the upcoming mocks and exams later in the year. Time is changing fast and as *Time to Pretend* quotes we are starting to "miss the boredom and the freedom and the time spent alone".

They do not just offer a reflection on the past in *Time to pretend*. It also encourages us to look forward to the

future and challenges us. "Yeah, it's overwhelming, but what else can we do? Get jobs in offices and wake up for the morning commute".

This is MGMT telling us to not let the burden of adulthood force us into conformity. If you have a dream, go do it while you can. Going from a classroom to an office is not the only option.

This is what makes this album so good and why it deserves to be Album of the Term as it is ever relevant at this time in all our lives. And the irony is, these heartfelt songs that resonate so much with us were MGMTs attempt at making the most pop sounding commercially safe song possible.....in their college dorm room.....as a joke. I am not making that up. However, I am not letting that take away from the fact these songs verbalise something very important in our lives right now and that is **remembering the past while also having an optimistic view of what lays ahead.**

NEW MUSIC

ONE WAYNE G. MAC DEMARCO

PINK FRIDAY 2 NICKI MINAJ

NEW BLUE SUN ANDRÉ 3000

QUARANTA DANNY BROWN

WHY ARE THERE NO GOOD CHRISTMAS SONGS BEING MADE ANYMORE?

I have noticed the most popular Christmas songs that are played every year **always happen to be at least 15 years old**. Any new ones either gain fleeting popularity that is limited to the year of its release or barely scratch the top of the charts. My own personal favourites are all from at least 20 years ago apart from one anomaly which is Ariana Grande's *Santa Tell Me* however even that was still released ten years ago. **So why is it like this?** After giving it some thought, it is down to **saturation and too much focus on profit**.



Simply put, **artists have run out of Christmassy things to write about**, and the topic has been beaten to death. At the same time, this is a poor excuse as artists have still been able to write Christmas themed songs that are lyrically rich and somehow barely mention any seasonally relevant terminology and still manage to capture the Christmas spirit. *Fairytale of New York* by The Pogues is one of the best examples of this. **Much of the song is just a couple arguing and yet it still evokes a joyous urge in us to sing along to it**. Similarly, WHAM! took the not so desirable topic of a crumbling relationship with *Last Christmas* and

still managed to make one of the greatest Christmas songs of all time.



It is this **juxtaposing creativity** in the most popular Christmas songs that has been lost in recent years and could explain the loss in popularity amongst the most recent songs. Maybe this song writing approach was generational and unfortunately died with George Michael and Shane McGowan who both coincidentally passed away near Christmas, George Michael even died on Christmas day, making for some interesting symbolism of the current state of Christmas music.

This said, there is still success in more simplistic Christmas songs like Paul McCartney's *Wonderful Christmastime* which has very straightforward Christmassy lyrics with a calming, and creative instrumental. I could conclude that talented people are not making Christmas music correctly anymore, but I think that would be unfair considering that I have shown that a Christmas song can take many forms and still be enjoyable.

I also mentioned the **profit incentive** being a defining factor as it is, without a doubt, a fact that Christmas songs make a disgusting amount of money.

It is estimated that Mariah Carey makes two million dollars a year of revenue from the royalties of her song *All I Want for Christmas Is You*. This is always why you see charity songs being made about Christmas as it is an opportunity to make a lot of money.

However, the darker side of this is that record labels have been caught up in the motivation of making as much money as possible leading to the release of many repetitive and talentless Christmas songs, which are usually covers, showing the growth of laziness since the turn of the century. Modern Christmas music has become regurgitated rubbish that can barely connect with people. It is now filler music to make retail workers go slightly less insane as there is now a different Christmas song to get underpaid too. Although it is very temporary relief for us retail workers, **trust me when I say I would rather be locked in a dark room for several hours than have an eight-hour shift of straight Christmas music.**



Though, there is some hope. One of my favourite artists, Tyler, The Creator, had the honour of producing the soundtrack for Illuminations 2018 adaptation of *The Grinch*.



While it is not the most popular collection of Christmas songs ever, Tyler did something important by **bringing his own style to Christmas genre while also making the songs from the perspective of a character who is notoriously anti-Christmas.** It made for very refreshing songs that I play all year around. That is a good sign of a Christmas song if you can play it all year round and it still be good.

In conclusion, while Christmas music is in a sorry state, I have some faith that the most talented of this generation will stand up and reign in a new era of timeless Christmas music.

GOOD CHRISTMAS SONGS!

AUTHOR & EDITOR'S FAVOURITES

LAST CHRISTMAS
WHAM!

MERRY CHRISTMAS EVERYONE
SHAKEN STEVENS

I WISH IT COULD BE CHRISTMAS EVERYDAY
WIZZARD

HAPPY XMAS (WAR IS OVER)
JOHN LENNON

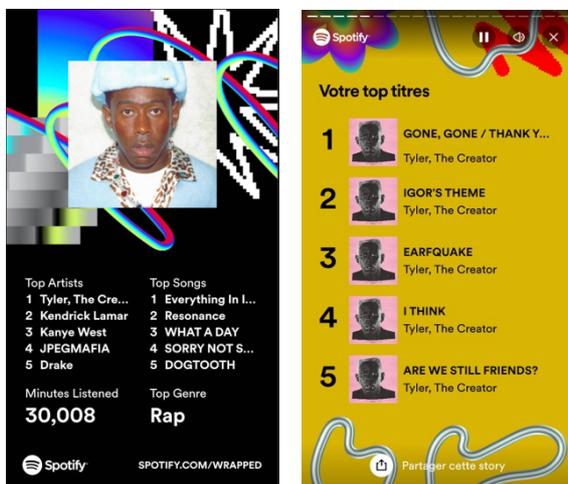
WONDERFUL CHRISTMASTIME
PAUL MCCARTNEY

FAIRYTALE OF NEW YORK
THE POGUES

SPOTIFY WRAPPED

(APPLE REPLAY, FOR COOL PEOPLE)

Every year, the world waits nervously to see their personal Spotify statistics in the form of wrapped. It gives you an interesting insight into how you listen to music and why you listen to music. It often surprises people and exposes our musical guilty pleasures that we swear we do not listen to (though we definitely do).



AUTHOR & EDITOR SPOTIFY WRAPPED 2023

I do have some issues with it as it often focuses on the most listened to artists of yours and alienates the variety of music you may listen to. While it does give a statistic regarding how many artists and genres you listened to, it doesn't go into detail. This can often lead to your final stats page not being very reflective of your actual music taste. Even for me, as I have mentioned, my taste is dominated by hip-hop but was invaded by Radiohead this year. The only way the influence from Radiohead was displayed was through my most listened to songs, everything else was mainly hip-hop which I just knew was not truly reflective.

The editor, sorry for the exposé, even had their top five songs completely dominated with Tyler, The Creators *IGOR* which I know does not reflect their taste.

(no shame though!)

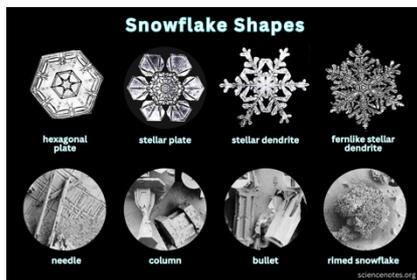
Away from that Spotify is having to find new and creative ways to make wrapped more exciting than the previous years. They have asked artists to record messages for their most dedicated fans which was a nice personal touch. But this does raise the question how many things they can add before Spotify wrapped becomes boring. Different Spotify analysis websites have been popping up in the last few years which offer the exact same information as wrapped does, sometimes even more, and is accessible all year around. These kinds of services completely remove the need for wrapped which will inevitably decrease in popularity. Spotify's monopoly on having a music analysis service is falling apart slowly as new data analysis websites are popping up and (dare I say it) other platforms such as Apple Music are starting to roll out similar services.

So, will Spotify wrapped become the new black Friday? Something that we all remember at this time of the year, but it just doesn't have the same hype anymore. Or will it continue to be an exciting event every year where we can continue to flaunt the unhealthy hours we spend listening to our favourite artists. I hope it is the latter.

SNOWFLAKES: THE MINIATURE MYRIAD

WRITTEN BY JOSEPH VARGHESE 13X

Due to the festive season approaching, I thought it would be a great time to discuss one of the awes of creation, sometimes referred to as a **miniature myriad**: the snowflake.

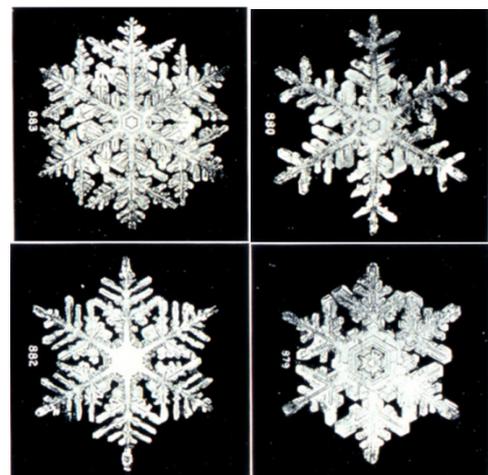


One thing that many do not know about the structures, is that **each snowflake is unique from one another** – the probability of finding two identical snowflakes is so incredibly small that it is ruled as practically negligible. Scientists have estimated, by looking at every possible structural arrangement, that **there are 10^{158} different identifiable features a snowflake could have**; all the way from the arrangement of the atoms to the very type of atom to begin with, such as those made from deuterium (^2H) instead of normal protium (^1H). These changes would mostly be impossible to tell apart with the naked eye and can only be observed via microscopy or instrumental analysis.

A snowflake begins to form when a supercooled water droplet freezes onto a pollen or dust particle in the sky. This creates an ice crystal. As the ice crystal falls to the ground, water vapor freezes onto the primary crystal, building new crystals to form the six arms of the snowflake.

The ice crystals that make up snowflakes are symmetrical (or patterned) because they reflect the internal order of the crystal's water molecules as they arrange themselves in predetermined spaces, known as crystallisation, to form a six-sided snowflake.

The intricate shape of a single arm of the snowflake is determined by the atmospheric conditions experienced by entire ice crystal as it falls. A crystal might begin to grow arms in one manner, and then minutes or even seconds later, slight changes in the surrounding temperature or humidity causes the crystal to grow in another way. By the time the snowflake reaches us, it has gone through multiple different minute changes, resonating its intricate nature. Light refraction combined with appealing symmetry enhance the delicacy of the snowflake and help make it a fascinating particle.

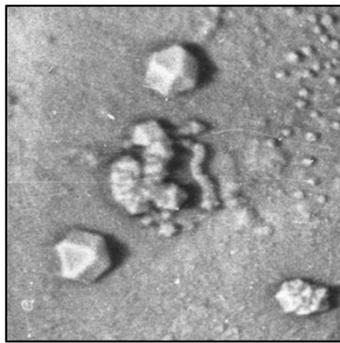


MICROSCOPIC VIEW OF SNOWFLAKES BY WILSON BENTLEY. FROM THE ANNUAL SUMMARY OF THE MONTHLY WEATHER REVIEW FOR 190.

OTHER SNOWFLAKES IN OUR COSMIC NEIGHBOURHOOD

Earth is not the only planet in our solar system to form these intricate structures; Mars has the most similar, forming a cube-like structure instead of our hexagonal structure.

Snowflakes can only occur due to the dry ice on the planet. Snow comes in two varieties: water ice and carbon dioxide, or dry ice. Because Martian air is so thin and the temperatures so cold, water-ice snow sublimates, or becomes a gas, before it even touches the ground – dry-ice snow actually does reach the ground.



This is a picture of carbon dioxide crystals formed under Martian conditions on Earth in a controlled system. This is the best portrayal of what Martian snowflakes could look like if viewed with microscopy.

Clouds of snow hang above Mars during the planet's winter, covering its poles and reaching about halfway to the equator. Researchers studied observations of these clouds made over the last decade or so by two NASA spacecraft, the Mars Global Surveyor (MGS) and the Mars Reconnaissance Orbiter (MRO). Instead of the six-sided flakes like Earth, Mars gets cubes falling from the sky. This is due to the way ice crystals form when carbon dioxide freezes, NASA says. These flakes are “smaller than the width of a human hair,” which means even the biggest of snow drifts are seldom more than a few feet tall.

THIS TERM IN SCIENCE

An astronomical waltz reveals a sextuplet of planets: Thanks to a collaboration with scientists working with data from NASA's satellite TESS, they uncovered that the planetary system orbiting the nearby star HD110067. A very distinctive feature of this system is its chain of resonances. The planets in the HD110067 system revolve around the star in a very precise waltz. When the closest planet to the star makes three full revolutions around it, the second one makes exactly two during the same time – a 3:2 resonance.

A study unveils the link between musical preferences and our inner moral compass: Researchers at Queen Mary University have employed machine learning techniques to analyse the lyrics and audio features of individuals' favourite songs, revealing a complex interplay between music and morality. The study involved an existing dataset of over 1,400 participants who completed psychometric questionnaires assessing their moral values and provided information about their favourite artists through Facebook Page Likes.

Scientists build tiny biological robots from human cells: Scientists have created tiny moving biological robots from human tracheal cells that can encourage the growth of neurons across artificial 'wounds' in the lab. Using patients' own cells could permit growth of Anthrobots that assist healing and regeneration in the future with no need for immune suppression.

THE GOLDEN RATIO:

MATHEMATICS' MOST MISUNDERSTOOD NUMBERS

WRITTEN BY COURTNEY MARTIN 13A

WHAT IS THE GOLDEN RATIO?

Also known as Phi, Φ , the golden ratio is an irrational number equal to $(1 + \sqrt{5}) / 2$ or approximately equal to 1.6180. It's claimed to be a ratio present in almost everything from music and art to even the DNA in our body.

HOW IS THE GOLDEN RATIO DERIVED?

Imagine splitting a stick into two parts at a random point on the stick. The golden ratio will occur when the entire length of that stick divided by the longest section of that stick is equal to the longest length of the stick divided by the shorter section of the stick. In a more mathematical sense, a stick of length $(a+b)$ where a is the longest section of the stick and b is the shorter length of the stick the golden ratio will occur when $(a+b)/a$ is equal to a/b . Rearranging of $(a+b)/a$ as shown on the image leads to a quadratic equation

$$\frac{a+b}{a} = \frac{a}{b}$$
 The golden ratio occurs

Using =

$$\frac{a+b}{a} = \Phi \quad 1 + \frac{b}{a} = \Phi$$

$$\frac{a}{a} + \frac{b}{a} = \Phi \quad 1 + \frac{1}{\Phi} = \Phi$$

$$\Phi + 1 = \Phi^2$$

$$\Phi^2 - \Phi - 1 = 0$$

Substituting into the quadratic equation

$$\Phi = \frac{1 + \sqrt{5}}{2}$$

$\Phi^2 - \Phi - 1$ which can then be solved for phi, $(1 + \sqrt{5}) / 2$.

IS THE GOLDEN RATIO REALLY EVERYWHERE?

A popular example of how the golden ratio can be found in nature is the nautilus shell, which follows a logarithmic spiral in shape. Often the nautilus shell is lined up the shape of a golden spiral, to draw a parallel to the link of nature and the golden ratio.

However, as previously mentioned, Phi is an irrational number; this means that the golden ratio can go on infinitely after the decimal place without repeating. While the nautilus shell is a wonderful example of an approximation of the golden ratio, it is far from being exactly phi.

Though, that is not to say that there are no examples of the golden ratio in nature at all.

THE GOLDEN RATIO AND THE FIBONACCI SEQUENCE

The Fibonacci sequence is formed through the addition of two previous terms in the sequence: 1, 2, 3, 5, 8, 13, 21, ... etc. Interestingly, by dividing one term in the Fibonacci sequence by the previous term (eg - 21/13) it's possible to approximate phi. This approximation becomes more accurate the further along the sequence the values are taken.

THIS TERM'S WOMAN IN STEM

WRITTEN BY COURTNEY MARTIN 13A

"Life need not be easy, provided only that it is not empty"

Dr. Lise Meitner was an Austrian physicist whose work was vital to our understanding of nuclear fission. Born on the 7th of November 1878, she received private tutoring from the age of 14 onwards as women could not receive higher education at the time. However, in 1901 she began studying Physics at the University of Vienna and received her doctorate 5 years later in 1906. Her contributions to nuclear physics have led to an element being named in her honour; element 109, Meitnerium, a highly radioactive element that can only be made within a laboratory.

After receiving her doctorate in Physics in the university of Vienna, Dr. Lise Meitner moved to the University of Berlin in 1907. It was here that Dr. Lise Meitner was introduced to Otto Hahn, a chemist studying radioactive substances and they soon began collaborating in researching radioactive substances.

At the time women were not allowed into the university; as a result, for the first year Dr. Lise Meitner was not permitted to enter any parts of the institute apart from the woodworking shop where she conducted her own research. After moving to Kaiser-Wilhelm Institute, Dr. Lise Meitner and Otto Hahn discovered Protactinium isotope within the uranium ore pitchblende.

The neutron was discovered in 1932, and only 2 years later Uranium was bombarded with neutrons by Enrico Fermi producing an element heavier than uranium. As a result, it was believed that this process could only cause small

changes in the number of neutrons/protons within the nucleus.

Dr. Lise Meitner and Otto Hahn as well as another chemist called Fritz Strassman also began reacting uranium with neutrons and recording the products produced in the reaction. However, during World War 2, Meitner had no choice but to flee Germany for her own safety due to being Jewish and as a result, moved to Stockholm in Sweden where she began working at the Nobel institute for physics.

Dr. Lise Meitner and Otto Hahn continued to correspond with each other through letters. In 1938, Otto Hahn (while working alongside Strassman) found that reacting Uranium with neutrons led to the formation of Barium. With Barium having 40% of the mass of Uranium no such process had been seen before. Otto Hahn wrote to Meitner discussing their findings and as a result, it was Dr. Lise Meitner and her nephew Otto Frisch who theorised the explanation of the results.

Viewing the nucleus like a liquid droplet, when the Uranium was bombarded by neutrons the droplet would pinch in the middle and eventually split into two separate droplets – two daughter nuclei. They named the process Nuclear Fission after the term Binary Fission, a process in which cell division occurs.

Despite receiving 49 nominations for Nobel Prizes in Physics and Chemistry, Dr. Lise Meitner never received the Nobel prize. However, Otto Hahn did receive the chemistry Nobel prize for the discovery of nuclear fission.

A SLEIGH IN SPORT

WRITTEN BY GEORGE RICHARDS 13X

**SPORT OF THE TERM:
BASKETBALL**

**ATHLETE OF THE TERM:
FRANK SOO**

**SPORT EVENT OF THE TERM:
FOOTBALL PREMIER LEAGUE**



THE STORY OF FRANK SOO

A story I read about in the news was that of Frank Soo, **the first non-white man to play football for England**. Although regarded as a pioneer, Soo's name is one many have not heard of, including myself. Soo was born in 1914 in Derbyshire, just before the start of the First World War. His father coming from China, being one of only 1,319 China-born residents in the UK at the time, he met Soo's mother in Manchester. Soo was a talented footballer from a young age – at 18 playing for the Preston Cables and being scouted by Stoke City a year later. By the age of 24, he was the captain of the club, and growing rapidly in popularity amongst the Press and fans. **Between 1933 and 1945, Soo played 260 matches, with the Second World War causing disruption to his career.** Nevertheless, he made it to the international stage in 1942. That year, he played against Wales with a crowd of 30,000 people, **debuting his career playing for England and making him the first non-white man to play for England.**

Following the war however, Soo experienced multiple disruptions and in the face of competition, pulled out of playing and moved into management. His international career as a footballer, as short-lived as it was, was never fully recognised nor appreciated by the public, as his management career quickly swept him off abroad to the 1952 Olympics in Norway. Soo passed away in 1991, but to this day his name goes unknown to many; I thought his story was particularly important, as such an influential person, **a pioneer for non-white representation in sports, particularly football.**

MENTAL HEALTH IN SPORT

There has been a **gradual increase in talk surrounding mental health and sport in recent years**, though still not enough, with athletes of all levels, ability and fame beginning to raise awareness surrounding their experiences and challenges. Earlier this year, **Adam Peaty** opened up about his struggles that resulted in him pulling out of the British Championships.

Previously speaking about his struggles with alcohol related to depression, he described himself as in a “self-destructive spiral”. In swimming, defeat often is achieved by the slightest of margins, with professional athletes such as Peaty competing to shave tenths, or hundredths, of a second off their times, or their adversaries’. Peaty, along with other athletes who have spoken out this year, mark a cycle of toxicity that exists in sport, that is only worsening.

Several athletes of Loughborough University’s swimming programme talked about their experience of being bullied for their bodies, causing some to develop eating disorders and suffer from poor body image. Swim England thankfully announced the banning of weighing swimmers under 18, as eating disorders and mental health issues were noted to be a severe issue in the sport.



However, this is not enough. The issue extends of course outside of the swimming pool, with many athletes from amateur to elite suffering from both external and internal pressures. Eating disorders and body dysmorphia is “normalised” in sport. It is an unspoken problem that blocks the fun and enjoyment that comes with competing and partaking in a sport. The charity Beat supports people who are struggling with an eating disorder in the UK.

CHARLIE McINTYRE

From Southend, but now playing for the Italian team Dinamo Sassari, Charlie McIntyre is an 18-year-old wheelchair rugby player. Growing to fame in the England 3x3 team in the Commonwealth games last year, his team earned bronze medals in Birmingham when the sport made its debut.



3x3 basketball is a smaller format, but more invigorating and action-packed version of the standard 5x5 game, and was McIntyre’s step up from junior level, being player of the season for the Under-15 category and a national bronze medallist before stepping up to the international level. McIntyre represents the new emerging generation of athletes, and his rise to fame has been marked by his recent inclusion for the BBC Young Personality of the Year Award, that will be announced on the 19th December.

Currently residing on the island of Sardinia, he describes having to “fly to every away game”, whilst playing in the more temperate climate of the Mediterranean. He is up for nomination amongst snowboarder Mia Brookes, who at the age of 16, is the youngest ever freestyle snowboard champion, and Penny Healey, who won gold at the Double European Games in Archery, and is world number one ranking at just 18 years of age.

BUCKMORE PARK

As some of you may know (or perhaps don't), Buckmore Park has been the birthplace of multiple influential drivers, such as Lewis Hamilton, Jenson Button and Johnny Herbert. At the top of Blue Bell Hill, we are fortunate to live near to the birthplace of such stars, where Prince's William and Harry drove karts in 1982 (pictured).



Built in 1963, the park faced financial difficulties in the 70s, similarly to recent years. Their workforce of 50 was reduced to just two in 2021 following lockdown. Nonetheless, the 1200-metre track has been the hotspot for many celebrities and visitors, including Paul Hollywood! Though we live so close to the track, motorsport and karting remains a sport reserved for the rich and elite. The "fun" karting that Buckmore Park was established upon soon became more expensive and less affordable for average families.

THE 1923 WORLD SERIES

The World Series is the term used for the championship in US Major League Baseball, and 100 years ago, the twentieth edition took place, with the New York Yankees competing against the New York Giants.

The World Series is annual, and always happens around October/November. There was a trend beginning to be established, as the New York Yankees became the third team that won in the first year of their new stadium, though they became the last until 2006 when the St. Louis Cardinals struck victory. Moreover, the New York Yankee's also won the World Series in 2009, hosting in their again new Yankee Stadium. The Yankees (despite having lost two previous, consecutive games to the Giants) had opened their new stadium earlier in the year, which set up a tone of success and strengthened the team from the start. The 1923 World Series was thereby the first to accommodate an audience of over 300,000 people over the 6 games, with gate receipts adding up to an impressive \$1 million!

Although the first game was a success for the Giants, the Yankee's soon powered through and gained control once again, winning the fourth, fifth and sixth games with the Giants in significant deficit. Babe Ruth, considered a well-known for the Yankees at the time, hit three home runs, a triple, a double, and two singles whilst batting - a comeback from what was defined as "post season demons".

ASTON VILLA'S ASTONISHING RECORD

WRITTEN BY SAMUEL BESWICK 13X

Aston Villa have taken the Premier League world by storm over the last month **dominating their last 5 matches winning 4 out of 5 of them.** Specifically, though Villa have managed to dismantle two title favourites in as many weeks. **Manchester City and Arsenal were sent home from Villa Park with their tails between their legs after both losing 1-0 to Unai Emery's men.** This to me is a hugely significant as just a year ago Villa was looking at a relegation fight and now, they are beating two of the best teams in the country. **So how have they managed it?**



The City encounter was truly one of the most impressive matches Villa have produced. The champions started the game off well forcing Martinez to make some sharp saves to prevent Haland from scoring from his first two attempts. However, from this point in City would have zero shots for the next 75 minutes. This is a first for the champions as they were locked up by the Villa defence for the large majority of the game. Many are blaming the loss of Rodri, who is suspended, but you cannot take away from how well Villa played.

City lacked the composure and were seen to be ragged at times, unable to effectively

keep the ball from the press of the Villa team. But it was not just the defensive output of Villa but their offensive output too. The 22 shots that Manchester City goalkeeper Ederson faced was the highest City have received since Pep Guardiola took over the side in 2016. The trickery and pace of Jamaican winger Leon Bailey gave the City backline nightmares as he took 8 touches in the City box and 3 successful dribbles. Backing the pacey Jamaican was the calm and collected Scotsman of McGinn who worked tirelessly playing 21 successful passes and winning 14 duels in the midfield area where City seemed so vulnerable. Unsurprisingly Emery welcomed with rapturous applause when the full-time whistle blew however Emery himself was very pleased with his players post-match.

He said, **"we were preparing the match trying to get this good performance collectively. We did good work defensively with a high press and we were trying to be aggressive."** High praise from a manager that has been in the game for so long, winning multiple European titles including 4 Europa Leagues and one French league title. The Spaniard has seemingly worked his magic with this thriving Villa side as a week later the Birmingham based club faced Arsenal just three days after their City triumph.

A not as impressive display followed against Arsenal but one that still showed real character up against an extremely high-flying Gunners team.



Villa started the game like a freight train flying off the starting blocks with ample amounts of high pressure. This paid off for Emery's men within only seven minutes the previous two stars of Bailey and McGinn linked up to create a beautiful chance. Bailey again produced some lovely skill to thunder his way into the Arsenal box as he cut the ball back to McGinn. McGinn was able to swivel himself in the 6-yard box and blast the ball past a defenceless Raya who really had no chance in saving it from that range.

At this point it looked as if Villa were going to reproduce their dominant display which they had shown a few days before. This was not to be the case as Arsenal pilled on the pressure to a tired Villa side. In this match World Cup winner and Argentine international goalkeeper Emiliano Martinez was the real saviour.

With multiple goal line scrambles along with three registered saves the ex-gunner kept an extremely important clean sheet against his former club, Arsenal had a late glimpse of hope with Kai Havertz putting the ball into the back of the net, but this was ruled out via VAR for a handball in the build-up of the goal. A controversial call but one that would elate Villa fans as they secured their club record 15th home win in a row.

Emery spoke after the game, when asked about a potential title challenge after two emphatic wins the Spaniard was fairly open in his reply. He explained fans "can be excited" by the chance of a title coming to back to Birmingham.

Now to many this simply looks like two wins from a football club that is doing well right now and that would be a fair assumption. However, for Villa fans and fans of football (unless you are a City or an Arsenal fan) this is an extremely important turn of events. For a different team to attempt to topple the Big Six is a huge achievement for football itself. Especially in a sporting world of oil giants and billionaires who plough millions and millions into these historically successful clubs such as Manchester United, Chelsea and Newcastle United. To see a team who, only five seasons ago was playing the second tier of English football and in 2016 was relegated to said second division, to see this team be able to fight with the giants is a huge boost to all of those that support smaller clubs across the nation.

Now to me that is the definition of an important sporting event. As much as for this article I have to look at specific events that have happened this month this has been building for a season or so for Villa. Investment is of course essential and its not to say that Aston Villa do not have money, but it has been smart business and employment that have allowed this team to really challenge for a title and I think to many around the country that is a hugely important deal.

