

THE HARROVIAN

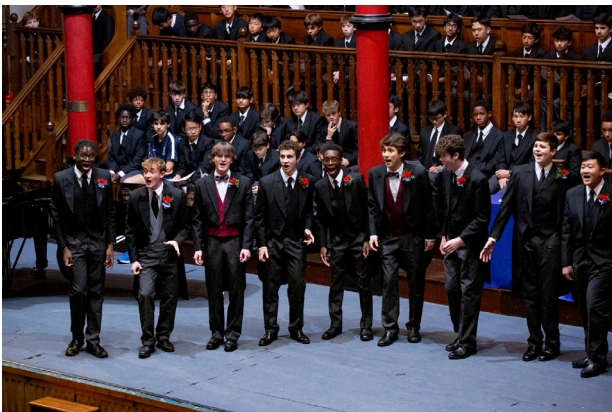
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GLEES AND XIIS

*Adjudicator Andrew Carwood MBE, Director of Music,
St Paul's Cathedral, Speech Room, 20 October
The Grove Won both Gleees and XIIs*

Despite a distinct historical lack of musicianship in Bradbys, not being awarded a trophy in the Gleees and XIIs in more than two decades (discounting their shocking, and perhaps underserved Harp two years ago), they put on a good show in both competitions. They sang *We'll meet again* in the Gleees, and *I'm still standing* in the XIIs. The glee started off well, with some impressive high falsetto singing from Felix Bamford, reminiscent of Julie Andrews talking to birds in *Mary Poppins*. Despite some occasional tuning issues, we were able to enjoy some juicy harmonies with Omar Ait El Caïd on the lead melody. In the XII, as the adjudicator pointed out, the song seemed to just drag a little as it went on, despite some impressive singing in what is a challenging song to pull off.



Druries sang *California Dreamin'* for their glee and 'Seize the Day' from *Newsies* for their XII. The glee started decidedly apathetically, with some soft and slightly flat singing, despite the lead's attempts to inject it with some vitality. If the aim of the competition was to lullaby the audience to sleep, then they may have just clinched the victory from Newlands' XII. So, having failed to impress the adjudicator, one must hope they come back slightly stronger next year. The XII was a completely different story, with some energetic fast singing, and some very soft and subtle singing, led by Joe McLean.

Elmfield, the winners of the Harp, sang Bubl  's *Everything* in their glee, and *What Do I Need with Love* for their XII. Perhaps one of the more deserving winners of the Harp from the past few years, Elmfield's glee, as pointed out by the adjudicator, had some rather snazzy solo singing supported by some classic Bubl   harmony (which was in tune for majority of the time), despite some rather shaky falsetto singing from their leader. Their XII was also impressive, keeping up their now well-earned reputation in this competition. There was some very exciting soft and energetic singing with crisp consonants mixed in with a bit of choreography. Overall a very good performance from Elmfield, and one can only hope for more in the future.

The Head Master's, who have been so close to winning for so long, came up just short again this year. They sang *Schadenfreude*

(again) in the XIIs and a rather pretty arrangement of 'Somewhere over the rainbow' for their glee. Despite it having won twice in the last ten years, The Head Master's did *Schadenfreude* justice, with some very dynamic and zesty singing. One would have struggled to hear any ts or ds out of place in this performance, which was very cohesive, especially the last spoken and spelled-out word. Their glee was slightly less fast-paced, but made up for it with some crunchy harmonies and confident treble solos. However, the performance was unfortunately brought down by some slightly rowdy baritones who did not quite blend in with the rest of the group.



The Knoll sang *Counting Stars* for their glee and *How Far I'll Go* for their XII. A strong performance overall from The Knoll in comparison to previous years. Despite some rather forced solo singing in the glee, the boys and guests were all drawn in as it kept on driving forwards, ending with a climactic "Learn!". The XII was equally a breath of fresh air from The Knoll, with a charming Disney classic from *Moana*. However, despite this performance being good relative to The Knoll's previous XIIs, they still have a long way to go if they want to be competing for the trophies.

Lyon's, after a long run of winning something every year, had to say goodbye to their good fortunes as they came away with nothing this year. Singing *A Million Dreams* for their XII, the boys seemed to dream of getting on stage, as most of the boys' faces gave nothing away. Despite this, and a particular boy's predisposition for putting his hands in his pockets, there was some very spirited singing, while keeping all the consonants together. They sang *Say a little Prayer* for their glee, following The Grove's lead from two years ago. They took it slightly faster, managing to stay in tune the whole time, with some ballsy dynamic choices. Despite their relatively strong performance, the adjudicator did not deem this performance good enough to be mentioned.

The Park had a strong year, singing *Moon River* for their glee and *Something's Coming* for their XII. Despite being mentioned as runner-up, the writer of this review feels that they perhaps didn't quite deserve the mention. After a shaky start, the harmony slowly settled, but not before the baritone and tenor succeeded in overpowering the Shell, who ended up having the appearance of miming the song. The end result was a baritone duet with some occasional backup from the two singers flanking them. However, there was some very sweet and expressive singing

from the quartet, who were one of the few groups that did manage to tell a story in their glee. The XII was another one of those mid-range performances. The boys brought the energy and the enthusiasm, but one only wishes they had brought the same energy for their choreography – attempting to mimic a catch, one boy did the action a beat early, half did it on the beat, a few more just after the beat, and one boy simply forgot. Some consonants were there, some weren't, but overall a good performance from The Park this year.

Moretons, despite having numerous members of the choirs in their glee and XII, didn't manage to come away with anything (again). Singing *Can you feel the love tonight*, they tried to bring the African "Pride Lands" to Harrow, but realistically only managed to drag them to Algeria before they ran out of steam. There was some very strong and confident singing from Max Morgan at the start, backed up by some cheesy, yet clean harmonies. However, the strong start was spoiled by some faltering altos and pitchy trebles. For their XII, Moretons sang 'Why, God, Why?' from *Miss Saigon*. Despite some straggling consonants and perhaps accidental delay effects, the boys gave us some strong singing, and a surprisingly emotional telling of the story. One hopes that Moretons can come back stronger next year and finally give the House something to celebrate.

Rendalls came away with second place in the XII this year, keeping their reputation as a House that might at any moment pull something out of the bag. Singing *I'll make a man out of you*, we were immediately drawn in by the syncopated entry and energy pouring out from the boys. Although performers must be tired of hearing this, what set Rendalls apart was they really told the story, and did that with their eyes and crisp consonants paired with clever dynamics that were all very well executed. Unfortunately, their glee was a different story. Singing *You'll never walk alone*, there was a shaky start from the bass, which overshadowed his strong mellow singing later on. Like some other Houses, the faces of the boys were all blank, perhaps from the effort singing acapella in Speech Room's stale acoustic. Similar to Newlands' XII, they never quite reached a climax in the song, and were content to lullaby the audience to sleep.

A very surprising performance this year from Newlands. They sang *Crazy little thing called love* for the glee, with some very classy singing by the frontman, and some stylish sound effects. Despite being pitchy at times, and not always completely together, it was a confident and mostly assured performance from Newlands – I hope they can come back even better next year and surprise us. For their XII however, there was some very soft and assured singing, the adjudicator noticed that they didn't quite get to the climax of the song.

The Grove have finally managed to win the double after years of trying. Therefore, it is only fair to question how much of a financial incentive our adjudicator received prior to the performances beginning on Thursday night. Singing *Teenage dirtbag* for their glee, a classic pop punk song, you could see every single one of the boys actually having fun, and showing it. There were some very clean harmonies and echo effects, and very confident singing from the Shells. In contrast to the glee, which most of Speech Room enjoyed, during The Grove's XII, there seemed to be a sense of frustration and boredom looming over and the question of "when will it end?" But there was a Sondheim-loving adjudicator – which speaks for itself really. It was perhaps an unforgivably long rendition of *Class*. Despite clean consonants and being together, the XII's unrelenting cheerfulness wore off within a minute and became excruciating for the audience – in fact you could see the Shells heads droop slightly lower as the song went on.

West Acre's singing in the glee was good, in contrast to their ability to carry out basic arithmetic before walking out on stage for the XII. The glee involved good solo singing at times and did at the start have good energy levels. Singing *Rolling in the deep* by Adele, the harmony at times was sometimes completely lost as were a lot of the words. As for the XII, singing *One*

Dance by Drake, I really do feel for anyone in that House with genuine ambition to do well in competitions like this. West Acre clearly wanted a bigger crowd reaction and more laughter which thankfully, they didn't get.

COMMEMORATION CONCERT

Speech Room, 8 October

The annual Commemoration Concert got off to a great start with the joint Symphony Orchestra delivering a rousing rendition of Sir Edward Elgar's Fifth March from *Pomp and Circumstance*, before moving on to Mendelssohn's Overture to *A Midsummer Night's Dream*. Written when he was only 16 years old, Mendelssohn takes us through the enchanted forest, portraying the fairies through the fast-moving violins, the horse's hooves through thunderous and majestic brass, and the donkey's bray with tongue-in-cheek imitations from the strings.



From the elegant yet dramatic late classical and early romantic, we were then transported to the courts of Germany by a reduced, Baroque-size Harrow Sinfonia, who played Bach's *Third Brandenburg Concerto*. The Brandenburg Concertos were dedicated to Margrave Christian Ludwig of Brandenburg in 1721 and were the pinnacle of Baroque composition. They showed off Bach's incredible ability to compose flawless counterpoint, and they also served the purpose of showcasing Bach's new favourite harpsichord. Led by the one and only DNB and accompanied by DNW on the (electric) harpsichord, the Sinfonia delivered an upbeat and exciting three movements, with some virtuosic, yet stylish solo playing from John Pederson, *West Acre*.

John Lyon's Chamber group, directed by Huw Jones (and reinforced with a couple of Harrow boys), not to be outdone by the Harrow orchestras, performed a crowd favourite, Morricone's 'Gabriel's Oboe' from the film *The Mission*. Supported the accompanying strings' strong attempt at polytonality, the John Lyon oboe soloist Sammy Smith brought the piece to life, with some beautiful and uplifting solo playing, finishing the piece on a top D that could bring the likes of Grumpy the Dwarf to tears.

Following John Lyon's Chamber group came the Big Band directed by SM, drastically shifting the atmosphere. Filling the room with electrifying sounds of trombones, trumpets and saxophones, they played *Freddie Freeloader* by Miles Davis, who was one of the most famous bebop musicians and composers of the 1940s and 1950s. Throughout this song, we heard solo from saxophones and trumpets, with a noteworthy solo from Dante Doros, *Elmfield*, on the saxophone. They then proceeded to play one of SM's very own songs, *Boogaloo Blues*, which had some very charismatic trumpet solo playing from Rio Odofin, *The Knoll*. Despite the strong performances, the crowd seemed decidedly unresponsive to SM's attempts to get the to clap along, resorting to occasionally tapping their feet to beat.

Then came the joint choir of Harrow and John Lyon to sing two absolute excellent songs, Mendelssohn's *Hear my Prayer*

and Monteverdi's *Beatus vir*. Starting with *Hear my Prayer*, the audiences ears were blessed with some angelic solo singing, but must have been somewhat surprised to hear some rather, well, joyous singing from the tenors and basses. However, they must have been even more delighted to hear John Lyon's soloist Amaroo Brown come in with a very beautiful and serene solo, reminiscent of a priest's plainsong intonations. *Beatus vir* then followed. With a strong start from the trebles, the full choir came in with a thunderous and passionate reply. This was accompanied by graceful instrumental playing by Kieran Leung, *The Park*, John Pedersen, *West Acre*, and Julian Chan, *The Head Master's*, who attempted to energise the ever-faltering beat. While the John Lyon choir perfect the art of a modern twist on antiphony, the two choirs reached the final 'amen' with a bar to spare, ending the piece in canon with a tumultuous chord from the organ.



So all in all, while perhaps not one for the ages, this Commemoration Concert during Harrow's 450th year was, as usual, an excellent night and concert to remember.

COUTTS LECTURE

Samson Kambalu, *'Antelope and the Problematic of the Gift: Film, Art and Praxis'*

What does creativity look like? This abstract question was finally answered at the Coutts Lecture for Art, where Samson Kambalu, a world-renowned Malawi-born artist who works as a Fine Art tutor and fellow at Magdalen College Oxford, demonstrated the cathartic act of creativity.

When he was asked, "Where do you get your ideas from?", he answered not with the spoken word, but with an unfiltered insight into his vibrant mind. He decided to move the front row chairs forward little by little to create a 'snake' of furniture, which he said he would animate into a moving dance. He thought that having LWH and JESB on the end of the 'snake's tail' with the cluster of boys' seats behind them, a sense of poetic thought had been imbibed onto the space. It was wonderfully bizarre. He made sure to mention that he finds ideas will often come when he actively looks for them, when asked if his ideas came to him spontaneously or in some other format – that you must explore the desire to create and find the artwork.

Kambalu is a practicing filmmaker, but not in the way that Scorsese and Tarantino use the moving image. He announced the bold claim that when Charlie Chaplin got himself on the silver screen, the true art of film died: instead of going to admire the spectacle of the simple moving image, people went to films to see essentially portable theatre. He sees narrative and character subtract from the unstained beauty of recorded footage. He reflects on the early 20th century, and how films of moving trains would frighten people as they thought they were going to be hit themselves. Thus, Kambalu's goal as a filmmaker is to revive this purer form of filmmaking.

It is unquestionable that an artist's upbringing will influence their work. Born in Malawi and attending 'the Eton of Africa', Kambalu has great pride in his heritage and culture, and explains how Africa, in its cultural and philosophical structure, is a catalyst for art, music and creativity. He eloquently describes the sense of "African time", where there is not an easily identifiable beginning and end. Time is a more fluid concept, which is demonstrated by the contrast between African music and Western music. In your average symphony, it goes from point A to point B, whereas African music is an ever-flowing repetition of rhythm. This parallels his approach, where he disregards narrative entirely. He showed some of his films, which displayed him hitting sand out of his hat at a building site or running in place next to a cactus in Arizona. They are bizarre yet utterly intriguing. He also showed us some of his sculpture and installation work, like *Holy Balls*, footballs wrapped in Bible pages, and animal-inspired sculptures based on the culture of masking in Africa.

His supposed magnum opus though is his sculpture entitled *Antelope*, which is based on a photograph from the early 20th century of a black man and a white man, both wearing large hats. The power of the photograph lies in the fact that black people were not allowed to wear these hats in the presence of whites. Kambalu, who always sports a hat himself, sees this as a symbol of power over oppression. *Antelope* sits on the prestigious fourth plinth in Trafalgar Square, and positions the black man as far larger than the white man.

Kambalu is a person who overflows with ideas and is inspired and excited by life. The most amazing thing, as aforementioned, was seeing a successful artist do his thing in the moment, being inspired by the boys and beaks in the OH Room, seeing the potential poetry of the space. A hearty thanks to LWH is due for giving all the students such a magnificent opportunity to learn from the best.

MEDICAL SOCIETY

Henry Miell, *Lyon's, 'The role of AI in medicine'*,
26 September

The second Medical Society talk, 'The Role of AI in Medicine', was delivered on 26 September by Henry Miell, *Lyon's*. It was an engaging talk, discussing the current uses and potential of AI in medicine. When we think of AI, systems like Siri and Alexa usually come to mind. However, Miell pointed out that the most important role of AI in medicine lies, initially at least, in handling logistics. AI is used to aid diagnosis and augment electronic filing systems, greatly saving time for both doctor and patient. A study performed in 2016 showed that doctors spend only 27% of their working hours interacting with patients. By using scribe assistants or other forms of AI to analyse data, doctors can spend more time with patients, improve care and precision.

Another vital role of AI is surgery. Miell narrated his personal experience with a Da Vinci machine, which operated on his kidney a few years ago. This is a device that enables precision surgery with minimal intrusion. Studies have shown that AI-assisted surgeries are five times less complex. AI systems like this also have an approximate fiducial localisation error of 1mm, which qualifies them even for neurosurgery and cardiothoracic surgery.

AI is also employed in medical imaging to increase accuracy. A study performed with radiologists has shown that AI can perform at the same level, if not higher, in diagnosing patients correctly.

A major issue of AI's use in medicine is the ethical problems involved. Increased use of AI will affect the livelihood of millions, whose jobs will either change or become completely redundant. AI will become so powerful that it will probably be able to complete any task given to it. Surely it is not fair to push doctors out of their jobs in preference for more efficient AI?

The years of relentless training and qualifications doctors endure to gain their positions cannot be ignored. However, AI is not better in every aspect. It lacks the complex interpersonal skills doctors do: empathy, understanding, comfort and reassurance, just to name a few. Many patients enter the hospital believing that they are dying; a clinical and dispassionate AI cannot be worse for the job. This shows a vital need for doctors throughout the future of medicine.

Despite the obvious disadvantages to AI, we also have to consider how it can greatly improve healthcare systems globally. Rather than waiting hours in the hospital for an appointment, AI can reduce the time required to minutes, allowing the government to free up resources, time and energy on more important crises. It could also help to decrease cost, especially in countries like the USA, in which simple healthcare amounts to \$4.1 trillion annually. With the help of AI, millions can be saved from loans and debt.

The future of AI is incredibly exciting, already showing potential for what we think it can be. Researchers at Oxford have created an innovative AI capable of predicting heart disease, outperforming 80%. Additionally, scientists at Harvard Medical School have developed an AI-based microscope that can detect severe blood conditions with an incredible 95% accuracy. Within the next five years, AIs can take a much greater part in prescribing medicine, assisting notetaking, and monitoring global office files as the technology becomes more accessible. Doctors in every country should be able to access this level of technology. While it will be difficult to achieve this, it is a worthwhile investment, improving the level of medical care around the world.

Miell believes that, in the next decade, surgeries will be done solely by AI, potentially phasing out the need for nurses. With AI's increasing role in medical imaging, the need for radiologists may also diminish, since they are unavoidably less accurate and efficient. The future of AI is fascinating and will continue to evolve in the foreseeable future.

ALEXANDER SOCIETY

Rory Grant, *Moretons*, 'The Polish Influence on the Battle of Britain'

I don't think there has ever been a talk given to a society at Harrow, in any capacity, that has been influenced by one's return to the Hill driving along the A40, although it is true that some may have been written in a hurry along the motorway on return from exeat. Nevertheless, Rory Grant's, *Moretons*, talk on 'The Polish Influence on the Battle of Britain' was inspired by such a trip. Situated by a roundabout junction near RAF Northolt is the Polish War Memorial, which commemorates the Polish airmen whose contribution towards the British war effort was invaluable.

Our story begins in June 1940, when some 30,000 Polish military soldiers were transported over the English Channel. Of those 30,000, around 8,500 were well-trained Polish fighter pilots. Winston Churchill, a name forever synonymous with *The Harrovian*, and Władysław Raczkiewicz (the President of the Republic of Poland at the time) agreed to form two Polish fighter squadrons: No 302 'Poznan' Squadron and No 303 'Kosciuszko' Squadron.

The Polish pilots were skilled. They had a high level of training and were extremely competent in the air. The British, however, were dismissive and ungrateful. At the time, the British were in possession of two types of fighter aircraft. The first of them was the Hurricane, it was an older make, slower, harder to fly and manoeuvre and much harder to fight with. The second aircraft was the Spitfire. It was faster, lighter, responded much better to the pilot at his controls and was by far the better plane in

a dogfight. The 'inferior' Polish pilots were given the lesser Hurricane while the Spitfire was handed to the 'superior' Brits.

The arrival of 'Adler Tag' (Eagle Day), signalling the start of the Luftwaffe mission to destroy the RAF, was proclaimed on 13 August by Reichsmarschall Hermann Göring. By 19 August, British losses had become so serious that the Air Ministry had reduced recruit training to two weeks (compared to six months before the war). On 30 August, Flying Officer Ludwik Paszkiewicz of 303 Squadron was conducting training manoeuvres over Hertfordshire when he observed a big formation of German bombers and fighters.

"Hullo, Apany Leader, bandits at 10 o'clock," Paszkiewicz radioed his Squadron Leader Ronald Kellet.

When Kellet failed to reply, Paszkiewicz broke formation and charged a Messerschmitt Me-110, which he and another Hurricane pilot shot down in the subsequent duel. The 303 Squadron entered battle the following day, 31 August, and in just 15 minutes of fighting, they managed to bring down six Messerschmitts without suffering any casualties. Strangely, the first day of action for 303 Squadron occurred exactly one year after the Nazi invasion of Poland. The squadron completed hundreds of flights and killed scores of enemy aircraft during the ensuing weeks. The most effective Fighter Command unit in the Battle of Britain, 303 Squadron downed 126 German aircraft in 42 days. Sergeant Josef Frantisek, a Czech pilot flying with the Poles who scored 17 destroyed aircraft, was one of nine pilots in the squadron who qualified as "aces" for shooting down five or more hostile aircraft.

Overall, the squadron outperformed the typical British fighter squadron in terms of kill totals while suffering just a third as many casualties. The Polish record was so outstanding, in fact, that Stanley Vincent, the RAF base commander at Northolt, decided to independently investigate their claims.

The Polish pilots gained popularity and adoration throughout England as a result of their exploits and courage. However, over time, their story of heroic valour and courage had been forgotten. Some Poles settled down in the UK, but many chose to return home where they were met with the full force of a new military regime in the form of the Soviet Union.

If you would like to find out more about this story and were not able to attend the talk Grant advises you to read *The Polish 'few'* by Peter Sikora.

EVANS SOCIETY

Henry Barker, *The Park*, 'Hannibal v Alexander: who was the greater tactical mastermind?', 10 October

On the 10 October, we settled into the Deno Leventis Library for the Evans Society's fourth talk of the term on, 'Hannibal v Alexander: who was the greater tactical mastermind?'. The speaker was Henry Barker, *The Park*. We soon dived straight into the lecture, with Barker setting out that his eventual conclusion would be mostly derived from Alexander's victory at Gaugamela, and Hannibal's victory at Cannae. First up was Gaugamela. Making use of a sophisticated map, Barker enlightened the audience about Alexander's recent success at Issus, along with the king's decision to prepare his army in Egypt before his final showdown against Darius. After Alexander had prepared, he was able to position his army on top of a hill around 10km from the Persians. Barker emphasised the importance of this, as it provided the Macedonian force with high ground, which would allow them to navigate an effective attack on the Persians. However, Alexander decided against this. This threat was also on the mind of Darius and, as a result, the Persian forces felt the need to remain positioned and ready for battle throughout the night. As you might have guessed, Alexander's tactical decision not to attack meant that he was able to face

a much weakened and exhausted Persian force the next day: a very strong tactic indeed. Barker proceeded to tell us about the battle itself, stating that the Macedonians had a force of 47,000, whereas the Persians had an army of 50–100,000, with over 30,000 cavalry. The Persians were set up in a basic formation while Alexander positioned his men slightly to the left to avoid being flanked, yet another tactical decision. Once the battle began, Alexander wisely shifted his army to the right. This was to move the battle away from ground that Darius had flattened to enable his chariots. The Persians were caught by surprise and were forced to send their chariots in prematurely to stop them from being completely ineffective. The Macedonians dealt with this threat easily. Later on in the battle, the Macedonian army was able to bait Darius to send forces to the centre of Alexander's men, which appeared weaker at the time. As a result of this, Darius left himself completely exposed, providing an easy route for Alexander and his fellow cavalymen to take advantage of and charge towards the King of Persia. Darius was forced to flee, and the Macedonians were able to wrap the battle up pretty efficiently soon after. These tactics, utilised by Alexander, provided him with one of his greatest victories ever, only losing 4,000 men compared to Persia's 30,000. Barker moved on onto the topic of Hannibal Barca, the leader of Carthage. He mainly focused his argument for the greatness of Hannibal's tactics on the battle of Cannae against the Romans. At this point in his expedition, Hannibal was relatively near Rome and had achieved a few victories against the enemy, but Cannae was certainly set to be a defining point in the campaign. Hannibal's tactics began before the battle even started, with the Carthaginian leader sending men to disrupt the Roman water supply, leaving them uncomfortable and frustrated before the battle. This annoyance was soon capitalised on by Hannibal, who sent around 650 mercenaries to the Roman army, who were pretending to have defected from the African side. What makes this move by Hannibal so genius was that, during the battle, these mercenaries revealed their true support for Carthage and were able to cause serious damage to the Roman army. Barker went onto the battle itself, going into particular detail on the formations of the two sides. The Romans made use of a relatively basic formation, which heavily contrasted to the complex arrowhead shape implemented by Hannibal. In previous conflicts, the Romans had found success by breaking through the Carthaginian front line and, as a result, Hannibal made sure to fortify this to a much larger extent in preparation for the battle. Once the battle commenced, Hannibal moved back the middle part of his army to create almost a crescent shape. This caused the Romans to be drawn into the centre of the crescent, allowing the Carthaginians to easily surround them. This was a devastating move by Hannibal and, by pushing the Romans into such a compact space, they were able to turn their strong infantry into one of Rome's biggest weaknesses and massacre the Italians. Barker stated that only 3,000 Romans were able to escape from the battle, with the rest being killed by Hannibal's ruthless force. This was truly a tactical phenomenon and paved the way nicely for Barker to discuss his conclusion. Henry made sure to heap praise on Alexander, reminding us of his immense courage and advanced tactics. However, in the end, he couldn't decide against Hannibal's tactical brilliance on the battlefield, handing him the Evans Society's award of most tactical leader in reputable fashion.

ASTRONOMY SOCIETY

Tomas Mugica Moreno, The Knoll

The Astronomy Society welcomed Tomas Mugica Moreno, *The Knoll*, to deliver its second talk on the topic of Venus and how such a name gives us a false sense of security about our neighbouring planet.

Mugica Moreno started the talk, as most do, with the history of his chosen topic. He said this particular planet, as it is so bright, can be seen from Earth with the naked eye, which means early humanity will have seen it and probably presumed it some sort of doomsday. It was not until 1610 when a man named Galileo Galilei used one of the first telescopes to see it clearly. And what a beauty it was.

What he saw shocked him, but Mugica Moreno steered us away from the astronomer and switched to Venus's shocking meteorology, his top tips to not instantly dying, and why we should maybe find an alternative name. Venus is a planet with an atmosphere containing 96% carbon dioxide and almost no oxygen. This is due to the expansion of our Sun, which as it grew, boiled away the oceans, released all the water and the CO₂, and gave Venus a maximum temperature of around 474 degrees Celsius. Add in some sulphuric acid clouds, which would not just suffocate you but also, if a bit leaky, would shower acid rain with a PH of 0.3, which is even enough to burn a hole in the tables of the Chemistry Department. Venus also suffers an atmospheric pressure rate which is 90x that of Earth, and pair that with the 48 quintillion tonnes of CO₂ and 500-degree weather, Mugica Moreno did not recommend it on Tripadvisor.

Scientists don't want to be launching astronauts onto the planet, but if it were possible, they would be shipping off astronauts as we speak. So, Mugica Moreno began explaining what technology we would need to live for a few seconds on Venus: very thick titanium suits weighing approximately 140kg. This means not a lot of movement without a really strong jetpack. And, if the heavens opened and acid rain came into contact with your suit, you may have to say goodbye to your life. Now, in the atmosphere there is a spot where the temperature is similar to that of the Earth. The eye of the storm if you will. Why not send a hovering craft to chill there while people stare at the nothing? Well, Venus happens to be surrounded by 220-mile-an-hour winds, so a hot air balloon is off the table. Leaving the ship means instant death due to the H₂SO₄ which would burn you up like the SCR chicken curry, and if it rains, you will need an adamantium cruiser to avoid it melting with you inside. But compared to the planet, Mugica Moreno reminded us, this was heaven.

So why is this planet called Venus? The classicists among us will recognise Venus is the Roman goddess of beauty and love. Mother of Eros, she was called Aphrodite in her Greek form and was highly rated as the most attractive of the ancient gods. So why name a deadly, inhospitable despicable planet after her? Mugica Moreno explained the Romans knew their women, and they also knew that Venus was a really bright and shining blob in the sky. So, why not call the biggest light in the sky the most beautiful woman? What baloney Mugica Moreno scoffed. Unfortunately, he did not give us a name he thought more fitting, which no doubt would have been questioned by the intimidating Knoll Fifth Form audience, but he wanted to get across his thoughts clearly, which he did in style.

GEOGRAPHY SOCIETY

*Dani Neal, Moretons, and Jimmy Turner, Elmfield,
'How the Taliban brought Afghanistan to its knees',
20 September*

On 20 September, Jimmy Turner, *Elmfield*, and Dani Neal, *Moretons*, addressed the Senior Geography Society with their first talk of the year, titled 'How the Taliban brought Afghanistan to its knees'. It was a fascinating talk and was delivered well, with all in attendance captivated by the in depth knowledge. The first topic of discussion was the origins of the Taliban, Neal started by talking about how the Afghans failed to establish civil

order outside of Kabul and how the end of the war affected the country in 1992. Then, in 1994, a group of former fighters subdued a warlord and pacified nearby areas, which then led to a popular faction being formed, creating a group called the 'Taliban'. Neal then proceeded to talk about the ideas and beliefs of the Taliban, beginning with the fact that the Taliban represent nobody but themselves. The Taliban are also very close to and very specific about their religion as they do not recognise any religion except their own. Their ideological base is an Islamic revivalist movement within Sunni Islam, and their ideology is preached by party members in refugee camps. The third topic of interest was the breakout of war in Afghanistan. War broke out in 2001 after the Taliban officials refused to hand over Osama bin Laden following the 9/11 attack in 2001. The US military managed to push the Taliban down into southern Afghanistan and across the border into Pakistan. This eventually escalated into the bombing of Afghanistan by the Americans with the help of the Northern Alliance (including the UK).

The second phase of the war covered a much longer period (2002–08) compared to the first, which lasted two months. During the second phase, the US managed to defeat the Taliban military and return structure to the core institutions that were once held in Afghanistan. The third phase continued from 2008 to 2021, when the US increased the number of troops present in Afghanistan in order to help protect the remaining non-Taliban population.

Turner then took over and began to talk about the difficulty in the progress of the Taliban. We firstly learned that the Taliban frequently suffer losses in conflict and that it can affect the group as whole. They still, however, manage to maintain many members: they had 60,000 active fighters as of 2021. This is reinforced by their saying 'for every brother killed the second brother won't disappoint God's wish'. This continuous replacement of troops had negative affects on the group. Secondly, we are told there was no centralised network to fight. There were multiple commanders across Afghanistan, which made fighting more difficult as there were fewer specific areas to target and there was less alliance. The next area of concern was linked to improvements made during the conflict. The first example is an increase in internet access; 22% of the Afghan population now have access to the internet, 69% have a mobile phone and there are 4.4 million social-media users. Another area of development is the increase of high-rise buildings, especially between 2013 and 2019. The final area of improvement is women's rights. After the fall of the Taliban, 29% of secondary-school students were women, 22% of women had jobs, 20% of civil servants were women and 27% of MPs were women. Turner then told us of the end of the war on 30 August 2021. The plan to end the war, however, began in mid-April when Biden declared that everything set out to be achieved had been completed as terrorists no longer had a base in Afghanistan. Biden also originally stated that he would withdraw all troops by 11 September, which was later brought forward by a month. Turner went on to provide statistics on the war as a whole; the total number of dead US soldiers was 2,401 and \$978 billion was spent on the war up to 2020. Along with the withdrawal date, the US originally planned on leaving 650 troops in the American embassy, but after the US removed troops from the country, the Taliban advance was carried out with unprecedented speed, with Biden himself admitting "this did unfold more quickly than we had anticipated". This led to the plan to leave troops in the American embassy being scrapped.

The immediate aftermath of the Taliban's takeover saw the economy collapse as well as a rise in hunger across the country. Turner added that as of December 2021, there were 5.5 million displaced people, which resulted in 50% of the population needing humanitarian aid. No one currently knows the approach the Taliban will take in the near future; some say they will return to their old ways of the 1990s whereas others claim they will adapt and attempt to become a respected nation. Turner went

on to tell us how, upon regaining control of Afghanistan, the Taliban instituted a system of gender apartheid that resulted in separation in education, work and social life, such as the reduction in rights received by women over their futures including arranged marriages. The currency of Afghanistan in Afghani has also been heavily affected due to Afghanistan previously relying heavily on the US dollar, with \$1 US = 88.00 Afghani.

TIMES

Terry Charles and Nicholas Permain, OSRG

Times, taking place throughout the majority of October, features the recent works of Terry Charles and Nicholas Permain, the Hill's excellent Art Technician and Art beak. The exhibition displays work created in the Upper Leaf Schools. Covid delayed the showing, aptly named *Times*, from 2020 to this October, transforming the nature of the exhibition, which is a response to the personal lives of both artists.



The two artists' works intermingle fascinatingly to create a narrative through the exhibition. Permain's ceiling-to-floor paintings immediately confront people entering. His paintings depict impressionistic snapshots of his domestic environment. His layering of patterns, still-life objects and perspectives effectively capture the fleeting moments of everyday life. Permain worked on linen, paper and canvas to give a variation of textures and depths to his oil paintings, which combine to present a beautiful part of the exhibition. Charles' works, however, respond to the human condition, looking at rock stars and their inevitable mortality. In further contrast, Permain painted nine large-scale pieces, while Terry Charles created 80 small paintings and cutouts. Charles produced 50 portraits of dead musicians, one for every year of his life, to fully convince the viewer of the fragility of life. A line of painted faces of rock musicians hung on the walls evokes much emotion. The small and intimate scale of each painting made the pieces poignantly personal. Charles created the portraits with acrylic pens on his lap. This melange of a deep appreciation of the smaller everyday moments of life and an awareness of our mortality creates an engaging message, and the dialogue between the two artists enhances their works: Permain's pastel is bright, while Charles' darker portraits are so much deeper in texture. *Times* was one of the most colourful exhibitions I have attended at the Pasmore Gallery and is well worth a visit. The exhibition is now closed but always look out for future displays in the Pasmore Gallery.

PERCEVAL AND PEEL SOCIETIES

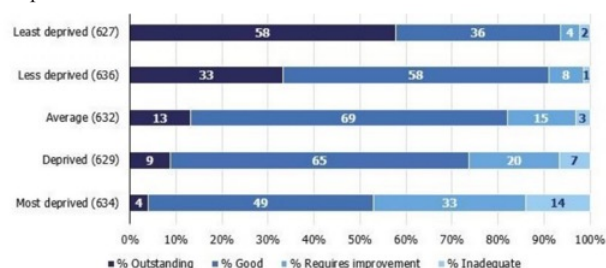
Jaden Odofin, *The Grove*, 'When will there be a Black prime minister?'

Last week, the Perceval and Peel Societies welcomed Jaden Odofin, *The Grove*, who gave an engaging and well-researched talk on the topic 'When will there be a Black prime minister?'. In this lecture, Odofin addressed the requirements to become a prime minister, barriers preventing people within the Black community from doing so in the past, and made a projection of when it could finally happen.

Odofin outlined the requirements of becoming prime minister broadly as academic successes in GCSEs and A-levels, going to a good university, having a top-level job, then becoming MP, and finally winning an election. Easier said than done.

Odofin subsequently delved into the limitations, starting with racism. Widespread racism began after World War I, and racial discrimination was not made illegal until 1965. Black people were generally forced to live in the most economically deprived areas of the UK, and we see that this trend is still an issue today.

There are also educational barriers, which Odofin presented through a graph of Average Attainment 8 scores in GCSEs. This graph showed that the Black ethnicity had one of the lowest attainment scores, only better than Irish Travellers and Gypsies. Another graph, showing the link to deprivation and quality of exam results, showed the clear trend that the more deprived the area in which you live, the worse your results probably are. Top politicians are willing to do nothing about this – most evidently shown by Rishi Sunak openly admitting that he took money away from deprived urban areas in order to put it into more affluent ones.



Odofin then outlined unconscious biases that are prevalent in our society. It has an effect in every department, not only in university and job applications, but also in everyday life. This makes it more difficult to get into a higher-end institution – which is a key step to getting into parliament. For example, David Cameron and Boris Johnson both worked in media, Theresa May in banking, and Tony Blair in law.

However, there is a glimmer of hope. Barack Obama, in 2008, became the USA's first black president despite the country having a racist reputation, proven by statistics such as there being 170 killings of unarmed African men since 2010 (proving the bias), and events such as the killing of Breonna Taylor, Trayvon Martin and George Floyd.

Could the same be emulated in the UK? Well, currently the Cabinet is more ethnically diverse than ever. There has been an increase of 1525% of BME representation (Black and Minority Ethnic) since 1987. In addition, there are movements such as BLM and Stop Hate UK, which show that progress is not only being made in politics. There has also been the denouncing of former racists such as Churchill and Colston over the past few years by people of all ages, classes and ethnicities.

Odofin next explored possible Black candidates, strongest of which included Kemi Badenoch, Dawn Butler and David Lammy. The prospects of a general election in the near future are strong – with Truss not starting well, and over five times more people calling for an election than the number who voted for her to become PM. Starmer has not been popular as well,

so a general election soon is likely. Odofin concluded by saying that we should expect a Black prime minister within the next 15 years; we just have to wait and see.

A big thanks is owed to Odofin for spending so much time on producing such a high-quality lecture that, notably, explored a topic so volatile that, after the talk, almost every figure under Truss was either deposed or replaced.

SCIENTIFIC SOCIETY

Shawn Shen, *Lyon's*, 'Schrodinger's Equation and its applications – a very mathematical introduction',

4 October

In this lecture, Shawn Shen, *Lyon's*, discussed Heisenberg's Uncertainty Principle, Schrodinger's Equation, and the Finite Square Well. Shen first introduced the concept of potential energy: the 'stored energy' due to an object's position in a field or spring. An object attached to a compressed spring has 'stored energy', as the spring has the potential to extend to its original length.

Heisenberg's Uncertainty Principle states that the more you know about the position of a particle, the less you know about its momentum. Thus, position and momentum are a conjugate pair (i.e. the higher the certainty in one value, the lower the certainty in the other value, and vice versa). Energy and time are also a conjugate pair.

$$\Delta p \Delta x = \hbar \quad (1)$$

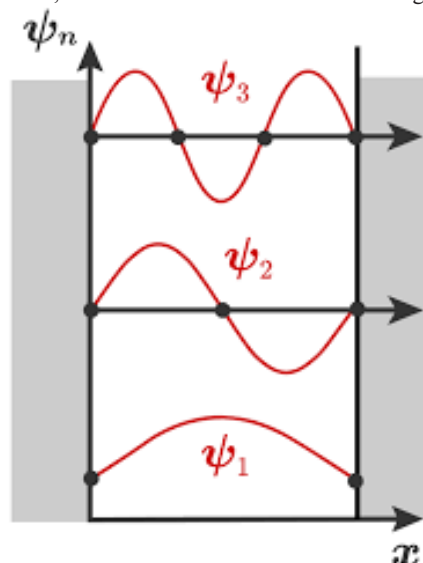
The above is a mathematical expression of the principle. Delta (Δ) represents the standard deviation (the spread) of the two values (p is momentum, x is position), while \hbar is a constant.

Using this, one can calculate the Bohr Radius in the 1-dimensional case. We need two more equations:

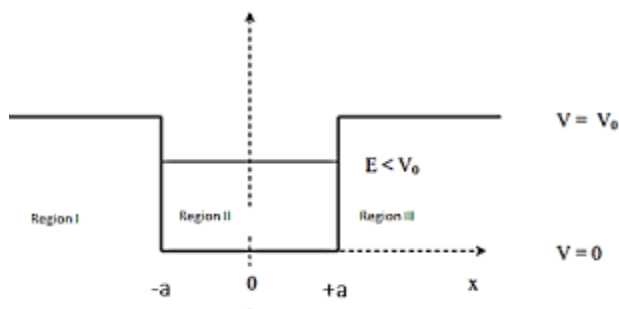
$$\text{K.E.} = \frac{1}{2} mv^2 \quad (2)$$

$$p = mv \quad (3)$$

Now, rearrange (1) to give $p = \hbar/x$, so the K.E. is $\hbar^2/(2mx^2)$. Thus, the lower the displacement (distance of an electron from the nucleus), the higher the K.E. Graphing the K.E. and the potential energy of the electron, i.e. the Coulomb potential, and summing the graphs calculates the total energy and the minimum of the graph. The most stable value of the electron is at this minimum. Assuming that the total energy value never changes ($Q1q1/4\pi\epsilon r - \hbar^2/2mr^2$), the derivative of energy (dE/dr) is also 0. Hence one gets: $Q1q1/4\pi\epsilon r^2 - \hbar^2/mr^3$, and it works out that $r = \hbar^2/m * 4\pi\epsilon_0/Q1q1$. The latter equation solves for the Bohr radius using only the Heisenberg Uncertainty Principle. The equation only works for 1D, single electrons, and ignores time. However, it is effective in calculations involving hydrogen.



Shen then explained Schrodinger's Equation. Shen first introduced wavefunctions, a mathematical function which describes a quantum mechanical system. If you square wavefunctions, it gives you the probability density function (a way of describing probability for continuous values) for a property. For example, the wavefunction of an electron's position along a certain dimension, squared, would give a graph which shows how likely it is for an electron to be found in a certain position. The sum of the area under the whole graph would be 1, as it is a probability. Further mathematical basis is required as well. In quantum mechanics, one does not deal with momentum, but rather momentum operators. Operators act on functions and give back an expression, like a function for another function. For example, $d/dx \ x^2$ is an operator which gives back the value of $2x$, and the momentum operator gives back the momentum. However, you cannot just use any operator. Quantum mechanics deals with eigenfunctions, which return the wavefunction multiplied by some constant when the operator acts on the wavefunction, and the constant is called the eigenvalue.



The Hamiltonian, represented by an H with a little hat on top, is the energy eigenvalue. Thus, \hat{H} times the wavefunction gives back the Energy Eigenvalue multiplied by the wavefunction (Ψ represents wavefunctions). The energy is just the K.E. + Potential Energy, so $E\Psi = T\Psi(x) + V\Psi(x)$, wherein T is the potential energy operator, and V is the kinetic energy operator. The kinetic energy operator is $\hbar^2/2m \ d^2/dx^2$, so the energy operator is $\hbar^2/2m \ d^2/dx^2 + V\Psi(x)$. The energy operator is the simplest form of Schrodinger's Equation, which describes the energy of a quantum mechanical system. The equation is time-independent and 1D, meaning that it only represents one dimension of movement and is unaffected by time. The potential energy is not shown as its value depends on the type of potential energy, whether it is from a spring, Coulomb force, or something else.

Shen then explained the infinite square well. The potential well is an area where a particle is present and has borders of 0; the potential energy needed to be at the border's positions is infinite. Thus, the particles are perfectly bound within the well, as it requires infinite energy to escape the area. What happens if we apply Schrodinger's Equation to this well? We would get: $\hbar^2/2m \ d^2/dx^2 = E\Psi(x)$

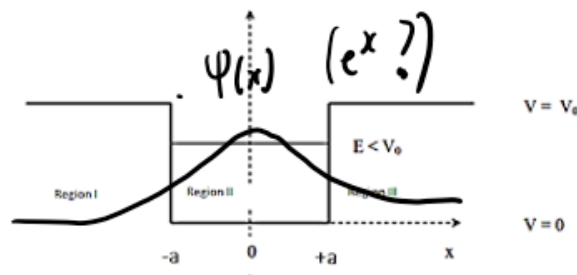
This can be rearranged to: $d^2\Psi/dx^2 = 2mE/\hbar^2 \Psi$. According to Shen, a pattern occurs at this point. Differentiating the equation gives the original multiplied by a negative constant, which is a characteristic pattern for cosine and sine patterns. I.e. $\cos(kx)$ differentiated is $-k \sin(kx)$, whose derivative is $-k^2 \cos(kx)$. Now, let us assume that the wavefunction is in the format of some combination of sine and cosine and use the boundary conditions. The boundary condition states that the wavefunction squared at 0 and a (i.e., the probability of a particle being at either of these positions) is 0, which is mathematically represented as thus: $\Psi(0) = 0$, and $\Psi(a) = 0$.

The general formula for a wavefunction is $A \sin k(x) + B \cos k(x)$. If we apply the first boundary condition, the wavefunction is 0 (as its square is 0), and $A \sin k(x)$ is also 0. Thus, B is 0. The second boundary condition is that A is equal to 0.

Therefore, the expression is $A \sin k(x) = 0$, or that $ka = n\pi$, wherein $\sin k(x)$ is 0. Assuming ka is $n\pi$, $\Psi(x) = A \sin(n\pi x/a)$. If we differentiate twice, it becomes $\Psi(x) = -A n^2\pi^2/a^2 \sin(n\pi x/a)$. So, the $d^2\Psi/dx^2 = -A n^2\pi^2/a^2 \Psi(x)$. If you use the previous $d^2\Psi/dx^2 = 2mE/\hbar^2 \Psi$, you will get $n^2\pi^2/a^2 = 2mE/\hbar^2$. Rearranging to get energy, E_n (Meaning energy of n) = $n^2\pi^2 \hbar^2/2ma^2$. The equation, for reasons I have not understood, says that n must be discrete. For different discrete values of n , the wavefunction for the particle within this infinite well is different. In fact, depending on n , it gives a wave-like shape within, and $n-1$ is the total number of nodes for that wave.

Below is a diagram of the wavefunction of a particle within the infinite potential well for different values of n . This property of n determining the shape of the graph is called the Sturm-Liouville theory.

Finally, Shen described the finite square well, which is same as the infinite square well except it now only requires certain energy to escape the area, so the particle is no longer permanently bound within an area. Let us apply Schrodinger's Equation to this. $-\hbar^2/2m \ d^2\Psi/dx^2 + V(x)\Psi(x) = E\Psi(x)$. Applying the equation to the regions I and III gives a similar result to the previous graph, except that the wavefunction at a and $-a$ is no longer 0. Therefore, $-\hbar^2/2m \ d^2\Psi/dx^2 + V_0\Psi(x) = E\Psi(x)$. Rearranging the equation gives, $d^2\Psi/dx^2 = (2m/\hbar^2)(E-V_0)\Psi(x)$ which is equal to $2m(E-V_0)\Psi(x)/\hbar^2$. When differentiated twice, the function gives a positive constant multiplied by itself, taking the format of e^x . This is boundary condition number 1. The second boundary condition is that the derivation of $\Psi(x)$ is continuous (as $\Psi(x)$ is also continuous).



The Scientific Society thanks Shen and the author of this write-up for providing a challenging and stimulating talk and article for the audience and the wider School community.

ORIENTAL SOCIETY

Thomas Tian, *Newlands*, 'The 10-year plan: China's move away from teaching foreign culture towards a nationalising education system', 4 October

This week the Oriental Society welcomed Thomas Tian, *Newlands*, who spoke on the topic of China's move away from teaching foreign culture towards a nationalising education system – a subject that is considered to be quite controversial today.

Firstly, Tian spoke about the main purpose of the educational reformation that is taking place in China. He explained that, every ten years, China changes educational structures depending on the resources China requires. The main change that occurs is the ratio of lesson time spent on certain subjects and will focus on guiding students into developing interests and studying subjects that benefit the country and its society. In 2024, high schools and universities will stop awarding offers to students with artistic talents. Rather, they will provide more offers to students who specialise in science and technology subjects. In fact, the ministry of education in China has also created a list of 36 hobbies designed to give students who develop these skills an edge in university application.

Secondly, Tian discussed the new compulsory education curriculum programmes and standards. The amendment process began in 2019 and there were six stages to it. First, the document was amended by a team of 300 members consisting of academicians, specialised scholars, senior professors and education managers. The second stage embedded President Xi's key concepts. The third stage involved analysing the existing education systems in China and around the world. The fourth stage was planning, editing and improving the current curricula in schools and implementing the new policies into existing schedules. The penultimate stage involved testing and feedback from 60,000 students across the country. Lastly, the curriculum was assessed by educational workers in varied positions before being edited accordingly. This led to the establishment of three types of curricula – the national curriculum, the local curriculum and the institutional curriculum. However, the majority of changes were made to the national curriculum: the ministry adjusted the time ratio of main subjects, such as English and mathematics, in order to promote the further learning of the Chinese language and literature. 20–22% of all lesson time will be Chinese, 13–15% will be mathematics, while only 6–8% of lesson time will be spent learning English. In addition to this, students are required to learn 160 Chinese poems. This was created in order to increase the level of difficulty of Chinese examinations. Furthermore, the new policy combined two existing subjects to create the 'Ethics and Law' subject which will be taught in all nine years of compulsory education. This subject is considered to be important as it is not a subject-specific class but rather sets up a correct world outlook for the new generation. Additionally, science will now be introduced to students starting in grade one while computer science will be broadly taught to all.

Thirdly, Tian introduced the policy of Double Reduction, which is one of the major changes in the Chinese educational system. It was previously thought that some schools set too much low-quality work that took up much of students' time after school. This policy focuses on decreasing the amount of pressure put on students after school, giving students more time in the afternoon for exercise and other activities that do not involve academic work. To support this further, the ministry also discourages the presence of tutoring institutions, stopping all advertisements for these institutions. The ministry also published a recommended sleep schedule earlier in the year and statistics have proven that, together with the Double Reduction policy, 60% of students now have more hours to sleep. 9.4% of students have gained two or more hours of sleep each night. 21.6% of students have gained 1–2 hours of sleep per night, while a massive 28.9% of students have gained an hour of sleep every night. This policy is thought to have brought the true purpose of education back. However, there are some economic drawbacks to this. New Oriental Education & Technology Group provides private educational services in China. It was the largest educational organisation in China based on factors including the number of programmes offered and the total number of students enrolled. It was the first Chinese educational institution to enter the New York Stock Exchange. In 2016, New Oriental had over 26.6 million students enrolled plus an additional 1.3 million enrolments in the first quarter of 2017. Due to the Double Reduction policy, New Oriental has had to dismiss 6,000 members of the company and had to repay 200 billion RMB in school fees to parents. The market value of the company dropped by 90% and the company's income dropped by 81%.

Tian then began to provide more insight into the decrease in the difficulty of English examinations and the increase in the difficulty of Chinese examinations. Some students studying in China commented that, this year, the writing section of the college entrance examination was the hardest writing exam in the past 15 years. Many of the students who took the exam did not even understand the title and requirements of the essay. On

the other hand, English was rated as an easy exam by many students this year as the new policies are turning English into a less essential subject for students. With these two points of commentary, many strongly believe that this trend will result in the Ministry of Education cancelling English as a compulsory exam for college entrance. Some parents support this because they believe that English is an extremely time-consuming subject and could affect the revision of other subjects, especially because English is a foreign language to students. On the contrary, other parents believe that children's foreign culture is valuable to the new generation, especially with the rise of the internet. The Ministry of Education has responded to these opinions by announcing that there will be fewer English lessons in middle and high school. However, there are currently no plans to cancel English as a main subject. Tian believes that it is crucial to make parents and students who struggle with English realise the importance of the language. He believes that the language is a fast-track ticket for China's development and allows it to connect with the rest of the world. He suggests that keeping English as a school subject would improve the education scheme. Despite it not being used daily, it remains a fundamental skill to have for the new generation.

Lastly, Tian explained why international schools in China are changing names. Originally, schools had names in English that included words such as National, International, and Global. But now all names of international schools must now include a Chinese version. This was stated in the law of promotion of private education, which was created in 2002, but frequently edited and improved over the last couple of years. The regulations for the implementation of the Civil Promotion Law strongly encouraged international schools either to turn into fully independent private schools or into public schools. Chinese is a powerful language that can often express deeper and more metaphoric meanings in titles and names. This allows schools to exhibit their educational scheme, values and advantages when compared to other schools. This policy mainly aims to regularise all school names so that parents do not choose a school over another purely because of their name. Many private schools are commercialised and sponsored by major companies. On the other hand, the resources of independent international schools hold no advantage over these large sponsored schools. Tian believes that this is not a huge issue because the policies are only here to improve the existing structure of international schools and allow competition between schools to be fairer.

MATHEMATICAL SOCIETY

Andrew Park, Rendalls, 'An Introduction to Probability Paradoxes', 5 October

The Mathematical Society welcomed Andrew Park, *Rendalls*, to speak about probability paradoxes and how human intuition tends to be incorrect in the field of probability.

Park started the lecture by giving a concrete definition of "probability" and "paradox". Probability is the chance of an event happening, and a paradox is a counterintuitive statement. Park went on to introduce three different probability paradoxes to the audience. These included the birthday problem, the Monty Hall problem and the 100 prisoners' problem.

The first paradox, the birthday problem, is perhaps the most famous. The problem states that only 23 people are needed in a room to reach a 50% chance of a shared birthday. This sounds ridiculous and totally against human intuition because there are 365 days in a year, but only 23 people are needed to have the same birthday ($22/365 = 6\%$). However, we are able to use a bit of maths to prove this. We are going to assume that no one is born in a leap year for simplicity's sake. We are first going to find out the probability that there are no shared

birthdays, then subtract that from 1. While we could directly work out the probability of a shared birthday, it would be too complicated and time consuming, because we need to consider way more possibilities. The probability of no shared birthday starts off at 365/365 with one person: it is impossible to have a shared birthday with one guy. It then goes to 364/365 when there are two people, and 363/365 when there are three people, and so on. If we multiply the probabilities together to find out the actual probability of no shared birthdays, we will find that once we get to 342/365, the answer is about 49.27% ($1 \times 364/365 \times 363/365 \dots \times 342/365$). And if we use $1 - 49.27\%$, we get 50.73%, which is actually more than half. Therefore, only 23 people are needed. In fact, only about 70 people are needed to have about a 99% of a shared birthday.

The second problem is the Monty Hall problem. Imagine you are in a game show and you have a chance to win a supercar. There are three doors: the prize is behind one door, with the two other doors having nothing behind them. You will choose one door to open without knowing what's behind them. However, before opening the door, the host of the show opens a door that has nothing behind it (and the door has to be unchosen). Then, you are asked if you want to swap your choice with the remaining unopened door. The problem is should you swap or not. Suppose you choose door 1, and the actual prize is in door 3. Now, door 1 has a 1/3 chance of having the prize behind it, with the other two having 2/3 chance combined. When one of the doors (door 2) is opened by the host, the probability of door 2 of having the prize goes to 0, and door 1 still has 1/3 chance of containing the car. However, suddenly, door 3 will have 2/3 chance itself, because we know for sure already that door 2 is a wrong door. Initially, door 2 and 3 have a 2/3 chance combined, but when door 2 is opened and nothing is behind it, all of the 2/3 chance will be on door 3. Therefore, you should always swap to have the best chance of winning. This problem suffered much debate for a long time, and Monty Hall (once the world's smartest person) proposed that you should always switch. However, she received much criticism. An example is 'May I suggest that you obtain and refer to a standard textbook on probability before you try to answer a question of this type again?' (Charles Reid, PhD, University of Florida). Now, we know for sure that switching is the best option.

The third problem is the 100 prisoners' problem. Suppose there are 100 prisoners numbered 1–100, and they go into a room one at a time. The room contains 100 boxes numbered 1–100, which contain the numbers 1–100. If all the prisoners managed to pick their own number, then they are free. If not, they are all executed. If a prisoner manages to find his number, he is to exit the room immediately, and the room will be rearranged to what it was like initially. The correct box will not be removed. When a prisoner goes in, he has 50 attempts. The prisoners are allowed to discuss the strategy together beforehand. The problem is to devise a method so that the prisoners have the greatest chance of survival. Park asked the audience for any suggestions before explaining the problem (only one person, Sunny Ye, *Rendalls*, managed to come up with the correct method). Now, to the normal brain, the chance of success is very low. It seems something like $(1/2)^{100}$, which is 8×10^{-31} . Putting this number into perspective, two people have a better chance of picking out the same grain of sand from all the beaches and deserts on Earth than the prisoners surviving. However, to the more mathematical brains out there, you might realise there is a method that can raise their chances of survival to almost 1/3. In fact, it is 31%.

The strategy is: when you go into the room, pick the box with your number on it. Then, if it's incorrect, pick the box that has the number inside the previous box e.g. if you are prisoner 40, you will go to box 40 first. If it's wrong and has the number 5 inside it, go to box number 5 and so on. This way, when the correct answer is found, the correct box will always tell you to go to the box you started with, essentially

creating a loop. With a bit of thought, we will soon come to realise that every box in the room exists within a loop. Your first box opens the loop, and your last closes it. The shortest loop being the box with its own number inside, and the longest loop containing all the boxes in a single loop. However, there is only one possibility of all the boxes existing in one loop, and if all the boxes aren't in one loop, we know that the whole room is made up of different loops. When you open your first box, you know that the box you have just opened exists within your loop. If the loop is shorter than 50, congrats; you haven't just killed your 99 companions and yourself. Also, if, say, a loop is 51 boxes long, we know that 51 prisoners are going to not find their number, as the loop contains 51 boxes. So, we can see now that the probability of the prisoners surviving is just the probability of the room not containing any loops that are greater than 50. The answer is about a third. To calculate this, we would first need to find out the number of ways to arrange 100 numbers and find out the correct permutations. For the sake of not making this write-up overly dull, I will leave those interested to work this out themselves.

Thus concluded Park's lecture. A very complicated and interesting topic, but presented in a manner accessible to everyone. Everyone in the audience emerged from Maths Schools with a greater understanding of not only the problems themselves, but probability in general.

PEEL SOCIETY

Harry Minderides and Lucas Ozmen, both Moretons, 'The Rise and Fall of the Ottoman Empire', 11 October

On Tuesday 11 October, the Peel Society welcomed Harry Minderides and Lucas Ozmen, both *Moretons*, to give a talk entitled 'The Rise and Fall of the Ottoman Empire'. The talk began in prehistoric times with a bit of background on the people who journeyed around the Central Asia area. From these people, languages like Turkish and Mongolian emerged. The Ottoman Empire lasted for 600 years and spanned three continents. The Empire's rise began in the year 1299 when Osman I, seen as the found of the empire and dynasty, launched raids against the Ottomans' Byzantine opposition. Soon after, the Ottomans started to expand their territory through Anatolia and, by 1326, the Ottomans had captured the city of Bursa, which they made their capital in 1335. However, shortly before they had captured the city, Osman I died, leaving his son Orhan as the second Sultan.

During Orhan's reign, the Turks made improvements to their army. They created an elite infantry unit called the Janissaries, who formed the Ottoman Sultan's household troops. The Janissaries were often offspring of Christian subjects and were forced to join. These children were forced to convert to Islam and became slaves. Even though they were slaves, some rose to great wealth and power. This system lasted until the end of the 17th century.

Over a century of battles, the Ottomans took over more land and enlarged their empire. After becoming Sultan in 1444, Mehmed II set his heart on conquering the city of Constantinople. But Constantinople was a fortress; it's Theodosian walls resulted in the city being impregnable to any enemy sieges for 800 years. The Ottomans had a trick up their sleeve, a giant cannon. This behemoth of a cannon weighed almost 17 tons and measured 27 feet in length. Using this cannon, they quickly took down the highly fortified walls and the Ottomans finally ended the Byzantine empire with a 55-day siege.

Minderides and Ozmen moved on to governance and trade in the Ottoman Empire. Because of its size and diversity, the Ottoman Empire had a tremendously complex social structure. Early in the empire, a Sunni Turkish minority ruled over both

a sizeable Christian majority and a significant Jewish minority. Although non-Muslims occasionally paid greater taxes and Christians had to play the blood tax, which was the Ottoman practice of forcibly recruiting soldiers and bureaucrats from among the children of the Balkan Christian subjects, there was not much difference in people of different religions on a daily basis. Though non-Muslims were theoretically prohibited from holding positions of power, this law was not upheld throughout the majority of the Ottoman era. In politics, officially, the Sultan was the government. He had absolute power and was personally involved in every governmental decision. The Ottomans most famously traded in silk, furs, cotton, spices and tobacco. They also imported glassware, gunpowder and medicines.

Next, Ozmen and Minderides talked about the Ottoman Empire's role in WW1, stating that, before the start of WW1, the Ottoman Empire was on the 'outside looking in' of Europe. The Black Sea Raid of 29 October 1914 was the catalyst for the Ottoman entry into WW1. It was a scheme to deceive Russia into attacking the Ottoman navy and giving the impression that Russia had started the war against the Ottoman Empire. After having declared war, the empire struggled to field a capable fighting force and this continued throughout the entire war. They fought on several fronts especially in the Balkans and the Middle East, and, of course, in the infamous Battle of Gallipoli. Over the course of the war, 3 million Ottoman soldiers served and approximately 325,00 Ottoman soldiers died.

There were a number of reasons for the collapse of the Ottoman Empire. One was that it was too agrarian. It had fallen behind in the industrial revolution and remained dependent on agriculture. Another was the fact that the empire was not cohesive enough, as it was too big to be ruled over by one government. One historian said that, even if it had survived the First World War, it would not have lasted as it would have grown more rebellious and eventually would have collapsed. Another reason was the outcome of First World War when the empire was made to sign a peace treaty that led to its dissolution and replacement by the newly formed republic of Turkey.

SHERIDAN SOCIETY

Ashley Hickson-Lovence, 'Your Show', 11 October

On Tuesday 11 October, the Sheridan Society welcomed Ashley Hickson-Lovence to give a talk on his book *Your Show*. It was the third lecture in the Black History Month Lecture series. **Your Show** is a fascinating read, giving an insight into the struggles faced by the first and only Black man to referee in the Premier League, Uriah Rennie.

Hickson-Lovence began the talk by explaining his life leading up to the publication of *Your Show*. He described growing up in a home without his father, and that his mother wished him to be a doctor or lawyer. Hickson-Lovence went on to speak about his semi-professional refereeing career, which was part of the inspiration behind writing *Your Show*. After entering the next stage of life at the University of London, Hickson-Lovence got the ideas for his first book, *The 392*. Always keen to be more knowledgeable about the topics of his books, Hickson-Lovence spoke about how he qualified as a bus driver before writing *The 392*. Then Hickson-Lovence spoke about the relief he felt after finishing his MA at the University of London. His thesis was a short piece that would go on to become *The 392*.

Hickson-Lovence went on to speak about how he was set a deadline of making his 15,000-word thesis into a 50,000 word book in three months, while juggling his job as a primary-school teacher. Hickson-Lovence spoke about the great help his agent offered, not only by sorting out the finance and negotiation side of writing the book but also giving him advice about

ways to improve it to make it more appealing to the publisher. Commenting on the nature of getting his book published, Hickson-Lovence spoke of the struggles he went through. He and his agent sent his book to three publishers who praised it but said there were too many flaws in it for them to publish it. After this disappointment, Hickson-Lovence spoke about how he decided to ask a small publishing company by the name of Own it, without letting his agent know. Own it agreed to publish *The 392*, and Hickson-Lovence described the joy of walking into a bookshop and seeing his book for the first time.

The joy of the success of the *The 392* left Hickson-Lovence desiring to write a book on one of his childhood heroes, Uriah Rennie. His great admiration for Rennie stemmed from his own career as a semi-professional referee, particularly the abuse he had experienced first-hand from semi-professional players and crowds of up to 2,000–3,000 supporters. Hickson-Lovence said that he could not imagine the abuse Uriah Rennie must have received, having refereed top-flight football matches with crowds 20 times the size of the ones Hickson-Lovence had experienced. Speaking about the process that went into contacting Rennie, Hickson-Lovence said that it was a struggle. At first, Rennie was not keen on the idea of the book because he is a private man, preferring to keep to himself. However, he eventually agreed to it and Hickson-Lovence managed to get nine hours of interview time. Hickson-Lovence spoke about the relative ease of writing *Your Show* despite only having only a limited amount of interview time to work with. It was useful to have his own experiences as a referee to help him fill in gaps. Hickson-Lovence then spoke about how he wanted to put the reader in the shoes of a referee and how he used a dynamic poetic style to make the book enjoyable to read. After this long, hard process, Hickson-Lovence managed to complete *Your Show* and it was published in April 2022. Due to football not being a well-respected topic in the world of literature, Hickson-Lovence spoke of the nerves he felt about whether the book would be a success. However, to his relief, *Your Show* was a major hit and was nominated for many awards. To end the talk, Hickson-Lovence read an extract from his latest book, which is due to be published in 2023.

MEDICAL COMMITTEE

Sexual Health Week, Breaking Barriers

Everyone should be able to access sexual health and wellbeing services in ways that best suit them.

But many face barriers when finding evidence-based, inclusive and non-judgmental support.

Sexual Health London (SHL.UK) is a free, discreet sexual health service for Londoners aged 16 or over. The service is for people with mild or no STI symptoms who would like to get checked. You can also request free regular and emergency contraception (effective up to five days after unprotected sex) by completing a simple, secure online consultation. The service provides testing for a range of sexually transmitted infections such as chlamydia, gonorrhoea, HIV, syphilis, hepatitis B and hepatitis C via samples you can collect at home. The simple kits require urine and a finger-prick blood sample to test for blood-borne viruses. Some kits may also offer additional swabs to test for oral and rectal infections if you have indicated that you are at risk of these infections. Once you've completed your order, your self-sampling kit will arrive in the mail within a few days. The kits are small and discreet, and the return postage is free, so you can simply pop the kit in your nearest post-box. If you would prefer to send it to the Medical Centre, please just email us to inform us. For further discreet sexual health support and/or referral, come along to the Medical Centre or check out brook.org.uk

METROPOLITAN

EVOLUTION OF SOCIETY

Part 3

Humanity has grown to be afraid of the future. Afraid of change. If there is one thing that you have learned from the past two articles in this paper, let it be that. We are inherently afraid of change. Yet somehow, as a collective, we have changed so much in what is really only a short amount of time.

YouTuber, author, podcaster and content creator John Green recently posted a Twitter thread in which he stated how old Queen Elizabeth was when major events happened. One is prominent: 'Queen Elizabeth II was born two years after the death of Lenin. Stalin died when she was 26. She was 35 when the Soviets sent the first human to space, 62 when the Soviets withdrew from Afghanistan, 65 when the Soviet Union collapsed, and 73 when Vladimir Putin came to power.'

Mr Green then went on to state a terrifying fact: 'We are fewer than three lifetimes removed from the creation of the United States, fewer than two from the abolition of slavery and one and a half lifetimes from the American Civil War.'

Queen Elizabeth's first prime minister was born in 1874, her last in 1975. A century later, look at how much has changed. Two world wars and the eradication of smallpox. History is not as ancient as you think. It is a terrible thought. Our perception of the world is distorted. Your parents probably witnessed the threat of nuclear destruction. Your grandparents may have fought in a world war.

Mr Green also recorded a TikTok in which he compressed all of human history into a human calendar, us now being 31 December 11:59. Some interesting dates to note, well, just one. 31 December The day of the Mongol and Incan empires, of the Magna Carta and Shakespeare, the Industrial Revolution, and the invention of the microscope. The realisation that we are in an infinitely empty and vast universe. All of that would have happened today.

And so, while change is often feared, it still happens. Progression is key, and it is a must if our lives are to improve. However, if progress is feared, then how are we to create it? Well, change is often caused by a single person or a small group. This small group then spreads its ideology across the town, or city or country or world, and then, over time, opinions are formed and changed, people take sides and, generally, conflict ensues. Be it verbal or physical, it does not matter. That is what happens. Post-conflict, the world agrees with the winning side, and we move on.

As Mr Green's calendar model shows, humanity has progressed so much in just one day. It took us 360 days to reach true progression. Now, because change is happening at such a rapid rate, it is becoming feared. People are beginning to focus on the downsides of design and innovation (robots are coming for your job!). This fear can lead to resistance and stagnation. However, we are in need of progress, now more than ever before. Our world is crumbling at the seams, we are repeating our mistakes over and over again. This cannot be allowed to stand.

Because change is happening at such a rapid rate, we have grown to fear it, as we fear all things different. Fear is what keeps us apart. Despite all being a part of the same human race, we have some innate fear of what is different, even if it is a social construct, like relationships or gender.

This matter is amplified in a world where connection runs riot via social-media networks, for example. We are more able to communicate now than ever before. What do we use this incredible power for? We use it to scare people. To incite fear and violence. In doing so we are disconnecting ourselves from

our identity as a species and focusing more on the survival of ideas and opinions than on the survival of ourselves and our fellow people. We have become so caught up in the desperation to have 'free speech' that we have forgotten those that truly cannot speak freely. We focus more on our differences and less on the things that bind us together.

This is why we need change, why we need to create and inspire change so that we can truly come together in a way that has never happened before. This change is, as Thanos so eloquently put it, inevitable. To reject change is the same as rejecting your existence. It has been proven before, so many times, that change is rapid, constant and for the better. So, instead of focusing on our differences and trying to deny change, try embracing our similarities and becoming a part of the change, shaping the future and inspiring others to change the world in which we live. When we are apart, we can do so little. When we are together we can do so much.

THE ENGLISH BEAK

The beak's excuse for his tardy arrival was a weak one. Not that anyone cared, not that anyone could say anything, not that any of the boys were bestowed with the perspicacity to realise that he did it on purpose. He fancied the idea of being shown respect by teenagers; he had not many other sources.

Chairs crashed, shoes stamped, and silence steadied the room. The simple expression of gratitude from the delighted beak – "Thank you for your co-operation" – prompted the room to revert back to its original state. The solemn fervour of awaiting a test overcame some boys, frantically exchanging revision material like hagglers in a Turkish bazaar. A nonchalant air of disregard, however, was the general consensus of most others. What was the point of trying? Down they sat.

Airplanes took off and soared from desk to desk. Intense sporting debates were taken on. A competition was underway in the deep corners of the form room, the challenge being who could eat more chocolate. Above, or below, all this, there was a constant drone in the background: a mixture of singing in the wrong octave, of the wrong key, of the wrong clef, and the mindless grunts and noises of the "class clowns".

"Not paid enough to care": the beak's mantra. With the chaos in the background, he checked his emails: information about a sport of no interest to him that he just happened to be in charge of, generic emails to staff, a final demand that he get his reports written. Finally, something interesting caught his eye, but he could not focus with the carnage before him. In a pathetic plea to appease the boys, he gave them a rather lukewarm stare. A certain beak's manual had promised that an icy look would keep boys in check.

The stare bounced off of the back of their heads, evidently useless. He lost patience. He yelled for silence.

More yells from the audience echoed back at him. A laughing-stock. He had to bring out the trump card. It had always worked in the past.

A bribe of desperation: if they behaved, the test would be cancelled. He cursed his weakness, and then he cursed his ineptitude for technology. He still had not figured out the punishment system, and he had not the audacity to ask the help of a colleague. He was too disregarded for them to listen to him either.

A barrage of suddenly respectful hands, requesting permission to leave early for their away matches. He let them go. It was the first period.

After the last of the dregs had emptied from the form room, a still quiet was restored at last. He peered out of the window and remarked to himself how lovely the morning was, bright and cool. It had been a relatively good day.

He could finally read that email.

OPINION

CORRESPONDENCE

Letters to the editors

DEAR SIRs,

I am writing with regards to the Winston Churchill Essay Prize. The Winston Churchill should be brilliant. Every boy studying English (the vast majority of the School) is asked to respond to a current question of debate. This year the prompt was ‘Should boys and girls be raised differently?’ At an all-boys school, I am sure that the answers to this question would be very interesting and would demonstrate not only the (I am sure) varied opinions of Harrovians, but also their skill at identifying arguments and presenting them. Making the prize compulsory demonstrates a rare opportunity to encourage boys to think freely. However, there two major problems with the Winston Churchill Essay Prize.

The first is the absurd word limit – can anybody reasonably explore even one argument in 450 words? The answer is no, they cannot.

The second problem is with the source material. The prize is judged by a boy’s ability to ‘identify and evaluate the views given in both texts’ and to give their ‘own views, based on what [they] have read’. This just totally overlooks the obvious opportunity to offer new information and to expand on the question into a broader argument (about the whole of society, or whatever it may be).

I appreciate that the prize gives boys an opportunity to get in some exam prep. However, the Winston Churchill Essay Prize should be an opportunity for almost the entire School to come together to face a great question of our time, not to do some exam practice – we have plenty of time to do that in our regular English lessons.

We must make this prize worthy of its great namesake.

Yours constructively,
ARTURO SAVILLE-MASCIONI, RENDAL

DEAR SIRs,

After reading the edition of *The Harrovian*, dated October 15, 2022, the one just before half-term, I was left surprised by how much I did not know about some of the people I work alongside.

The results were in for the 12-year poem submissions, celebrating National Poetry Day.

Tony Shi, *The Grove*, a deserved winner I thought.

Then I spotted the names of three people I loosely work alongside. Niki Palmer, Ian Lee and, in my view, the best of the three, Andy Ridgley.

It seems as if the Works Department is harbouring a plethora of poets and I most certainly didn’t know it.

I would imagine berets and Morrissey-esque flowers would be gratefully received, worn and waved like billy-o.

Yours sincerely,
NEIL PORTER

GAFFE AND GOWN

Quips from Around the Hill

“Sir from the bottom of my heart you are very handsome today!”
“Thank you, but I am not going to improve your grades.” “Oh.”

“Sir, the square in question 5 – are the lengths equal?” “It’s a square.” “But sir, is it a regular square?”

SPORT

BADMINTON

1st VIII, Away Winchester College, 13 October

The 1st VIII emerged from Abingdon with an undefeated record and were keen to snatch another victory. Having reshuffled our pairs, the boys felt ready to face off against Winchester’s notorious team, whom we had beaten on home turf last year. The first pair from Winchester proved vicious competition, though John Kwong, *Lyon’s*, and Wilfred Leung, *Druries*, should be commended for putting up a good fight against some very powerful shots and unwieldy feather shuttles. The pair played excellently against Winchester’s pair 3, securing a win. In pair 2, captain Vlad Plyushchenko, *The Grove*, and David Nakhmanovich, *The Knoll*, played hard and fought passionately, but unfortunately did not gain the upper hand in either match. However, against pair 4, they secured a comfortable win. Pair 3’s Ashton Kong, *The Head Master’s*, and JB Yeung, *The Grove*, played captivating games against Winchester’s pairs 3 and 4, using their usual teamwork and energy to bring us back into the running. In pair 4, Captain Chris Liu and William Wang, both *The Head Master’s*, secured two victories, after a particularly close game with pair 3. They dominated the match against pair 4. In the end, the Winchester team gained as many victories as our 1st team, so we settled with a draw. As always, the boys played with smiles and energy, even in the face of such a competitive team. We look forward to our home match against Winchester next term, where we hope our boys will bring home a clear win.

1st VIII, Home, Bloxham School, Won, 15 October

Harrow fielded its 2nd VIII against Bloxham’s first team on Saturday, in order to give our promising players a chance to represent the School and gain some match experience. They did the School proud, securing a convincing 6-2 victory. Harrow only conceded games to Bloxham’s first pairing, and even then Sun Dawei and Felix Doan, both *Bradlys*, put up a fierce and commendable fight. Jackie Guo, *The Grove*, and Thomas Tian, *Newlands*, also fought well as the second pairing, and beat their opposite numbers convincingly. Harrow put clear blue water between them and their opponents in the third and fourth pairings, but it is clear that Harrow has real depth to its badminton strength. The boys conducted themselves in an exemplary fashion, and ended the match by mixing the Harrow and Bloxham pairs for some enjoyable exhibition matches.

RUGBY

*Junior Colts A Home Hampton School Won 54-0
National Cup-Round 2, 11 October*

A sunny Tuesday afternoon saw the JCAs take on Hampton School in the second round of the National Cup. After a below-par start to the season, this was an opportunity for the boys to play their best rugby on one of the biggest stages in school rugby: the Sunley.

Showing great intent, the boys hit Hampton right from kick-off with Rocco Adatti, *The Knoll*, scoring very early on. In recent games this would have been when the boys would start to switch off. However, the boys played with a different mindset: playing the rugby which they knew they were capable of. The boys dominated possession, winning many penalties and hitting some big tackles. After an overwhelming load of tries was placed on

Hampton within the first ten minutes of the game, their morale was diminished and Harrow was dominant. Strong line breaks and use of space in the pitch lead to great ground being made by Lase Akindele, *Newlands*, Ben Leinwand, *Moretons*, Monty Morgan, *Rendalls*, and Oliver Cheeseborough, *The Knoll*. Both Leinwand and Cheeseborough scored breathe-taking tries, carving through Hampton's defence. The boys took great advantage of the width on the Sunley in order to get the balls to the wing, something which they had worked on. This allowed Akindele to cruise around the outside defender and score two tries. The forward's work in the opposition's 22 was exceptional. Harrow rarely came out of this area without more points. This led to tries from Matthew Finnegan, *Druries*, (x2) and captain Gus Chukwuemek, *Druries*. Jake Turner, *Druries*, managed to capitalise on an extra 14 points, nailing 6/7 conversions despite the pressure of the crowd. This led to the game being called off at half-time. The boys progress to round 3.

This was an extremely impressive display from the JCAs, giving them reassurance of what they are able to attain.

Yearlings A Away Orleans Park School Won 47-7 National Cup-Round 2, 11 October

Initially surprised by the size and strength of the opposition, it took Harrow much of the first half to settle into any rhythm. However, a few scores through sheer athleticism soon opened up the game and Harrow began to control the match with a barbarian style of running rugby that saw them to a convincing win.

The XV v Berkhamsted School Won 32-23 National Cup Round 2, 15 October

The XV displayed in spades all the Harrow values in a superb performance to advance into the last 32 of the National Schools Cup. Against a physically imposing Berkhamsted side, Harrow showed tremendous courage and fellowship to defend stoutly through the game, while two tries from Kepu Tuipulotu, *Druries*, and one each from Ollie Miall, *Newlands*, and Emmanuel Olowe, *The Grove*, with superb extras added by Cameron Ellis, *Rendalls*, giving Harrow a well-earned win.

2nd XV Home Berkhamsted School Won 13-8

3rd XV Home Berkhamsted School Won 71-7

A superb team performance. Oscar Sutherland, *Lyon's*, was dominant; Guy Paton-Smith, *Elmfield*, pulled the strings, and Theo Stockmeier, *Druries*, was player of the match, scoring two tries.

4th XV Home Berkhamsted School Boys Under-18C Won 57-7

Colts A Away Berkhamsted School Won 48-12

The Colts A, despite not having their captain (due to his selection for the XV) and a three-week break since their previous fixture, maintained excellent form and played some very direct and flamboyant rugby running in eight tries. The stand-out performer for his superb tackling, jackling, and carrying was Henry Dargen, *Druries*. Dargen also crossed the whitewash on two occasions.

Colts B Away Berkhamsted School Won 26-19

This week, the trusty band of the noble gladiators in the Bs were to be joined by some lovable rogues from the Colts As, who had been temporarily promoted to join the elite regiment after overflow commands from First Admiral Furber and Chief Captain Cullen. Our bespoke tactical squadron of 20 was the strongest Colts B team pieced together so far this year, and the ground was shaking with the thunderous expectation of the huge game about to unfold. Our tactical intel operative had learned that the opposition had not yet won this season. Our intel agent was then fired after we learnt that the opposition

had in fact not yet lost.

The journey into rural Hertfordshire was this week accompanied by some classic 1990s gangster rap (West Coast if I'm not mistaken) to rouse the team into fighting spirit. To get the adrenaline pumping on arrival, the Bs were told tales of medieval Berkhamstead from yesteryear. It turns out that, in 1066, after William the Conqueror defeated King Harold's Anglo-Saxon army at the Battle of Hastings, the Anglo-Saxon leadership surrendered to the Norman encampment at Berkhamsted, almost certainly on the same pitch that the Bs were playing on. Their goal for the day was to embody the Norman encampment and drive for a hostile surrender, but this time with no prisoners.

The whistle blew and the game was afoot. Alex Akinluyi, *The Head Master's*, lurched into action and began to impatiently hop, skip and jump across the halfway line shouting for attention. Like a good captain should, Seb Boreham, *Elmfield*, responded to his flock's calls for attention and brought the bouncing rubber baby back to the nest for consumption by the fledglings. The next five minutes were full of loud cracking noises after each tackle (most likely the blades of grass snapping in respect at how smooth and well-executed our tackles were), and despite Berkhamstead's excellent chat and clean kit, they were unable to dispossess the said baby, which remained in the clutches of our trusty warriors and was finally carried over the line by Akinluyi himself, converted by Harrison.

A few moments later, we gave away a scrum for only the 12th knock-on so far in the first half. While interlocked and engaged in heavy panting, a lively discussion about the floral aroma of the fabric conditioner used by the opposing school's laundry team erupted among the forwards. This led to Berkhamstead becoming distracted and allowing the ball to pop out the back of their scrum like a slice of burnt toast from a well-oiled toaster. Hugo "Detective" Evans, *The Park*, decided to pursue this stray ball as an intriguing line of investigation, and as their centre tried to hoof it back upfield in panic, Evans leapt forward reaching for the hand of god as Michaelangelo himself, knocking the kick down to the aghast surprise of the opposing centre. Most players had never before seen a successful chargedown try, so all stopped to tie their laces waiting for the knock-on call – not Evans however, who knew exactly what to do, and brought the ball once more into the welcoming bosom of the opposing try area.

Leonardo Lord, *Lyon's*, had until this point been combing his leg hair to improve his aerodynamic flow, not touching the ball, and asking if he could come off due to excessive tiredness in just one of his legs. Thankfully the coach saw through this thin veneer of feigned enervation and kept him on to do his humble bidding. Moments before the end of the first half, Lord took the ball from Adam Sameen, *The Knoll*, after he'd held it for a mere five seconds after being tackled, and began shaking as he was charging down the wing. Initially, the team were worried that Lord may be suffering an impromptu epileptic fit, but after a quick check of the medical records (taken in triplicate hard copy to all fixtures for exactly this moment) we realised he was not epileptic. Therefore, the shaking could only have been to distract the opponents from their tackling duty. This was a marvellous piece of strategy as he dashed past opposition players to take the baby home once more. The game was at this point most definitely in our favour.

Our confidence began to get the better of us in the second half, as our shortest player attempted some excessively long passes, none of which found anyone wearing the right colour, and led to a few interceptions and conceded tries – this was the moment we needed to activate Trump-mode toughen up and withstand the attack no matter what wrong we (and everyone else) knew we had done. The game was hotting up in the final ten minutes and we needed to fire on all cylinders to keep ahead. We lost our 10 after his nose decided to spontaneously burst open and recolour his shirt from blue to red. Thankfully, our slender and agile front and second rowers kindly offered

to step in at 10 to fill the gap.

It was now Samuel Howes', *The Grove*, moment to shine and show that, yes, he can play second row very well, but could also play 9, 10, 11, 12, 13, 14 or 15 without any loss in calibre. He hung around the back of a ruck looking for tasty morsels of ball to feed on like a hungry pigeon, and Lady Luck was indeed on his side. We turned over a ruck by slamming forwards into the pile and shouting constructive but aggressive feedback. Howes then swept up the ball, shouted 'THIS IS SPARTA', and charged through the backs to tap down our fourth.

After a brief yet friendly discussion between the ref and one of our backs clarifying the rules of the high-tackle, we dropped to 14 and this led to some defensive holes bigger than those in Kwarsi Kwarteng's mini-budget. Just like the ex-Chancellor himself, shots were fired and we were defending a try line full of gaps, missed opportunities, and aggressive backbenchers. In the final play of the game, a certain number 9 decided it was time to punt the ball directly to their winger with nobody marking him, who could then walk into the try area to score, bringing the score to 26-19 – a closer call than it should have been. Given that the same player also netted us a fabulous 50-22 line-out in the first half, the young man in question has been issued with a reduced-sanction of a mere 50 press-ups of remedial work to complete.

A solid result but still many things to work on:

1. Captain to remember to bring some balls after being asked only three times.
2. Switching frequently from West Coast rap to East Coast rap to tick the EDI box.
3. Not kicking the ball straight to the opposition winger in acres of space.
4. Not leaning against a ruck like a gentleman leaning over a fire to toast brownies.
5. Rucking, rucking, rucking, rucking, rucking. Then some more rucking for good measure.

Colts C Away Berkhamsted School Won 45-14

Another resounding victory! Great running from Tochi Orji, *The Park*, gave us an early try, which was quickly followed by another from Feo Mishin, *Elmfield*. Both were converted by Mungo Lawson, *Elmfield*. Two further tries from Mishin and one from Edmund O'Callaghan, *Elmfield*, put us 33-7 in the lead at half-time. The second half saw us victorious at 45-14.

Colts D Away Berkhamsted School, Won 40-14

Junior Colts A Home Berkhamsted School Won 54-5

Junior Colts C Home Berkhamsted School Draw 15-15

The Junior Colts Cs showed great courage in the face of a strong opposition to secure a draw, with Joseph Thornton, *Newlands*, carrying the ball 50m to score the equalising try.

Junior Colts D Home Berkhamsted School Won 46-15

Yearlings A Away Berkhamsted School Lost 5-14

A physical Berkhamsted came out firing with no quarter given in the ruck and a sleepy Harrow had little answer early on. Harrow slowly clawed their way back into the game and showed their potential with some dominant attack either side of half-time, but lapses in fundamental skills and desire across the squad left them short by the close.

Yearlings B Away Berkhamsted School Won 28-12

Harrow were dominant from the start with Nathan Kasonga, *The Park*, scoring from kick off within the first 40 seconds. A strong defensive display kept Berkhamsted at bay with Kasonga completing a hat-trick and Lere Pedro, *The Grove*, scoring his first try for Harrow.

Yearlings C Away Berkhamsted School Won 36-10

One of Harrow's famous songs contains the line 'October brings the cold weather down, when the wind and rain continue'. While there was no cold or rain at Berkhamsted's Chesham Fields, it was certainly blustery, and Harrow battled uphill and into the wind for the first half. This might account for the boys' sloppy start, which was characterised by handling errors and missed tackles. Harrow were tested early on with Berkhamsted lodged on the visitors' five-metre line, putting the boys under the most pressure they had faced this season. But this served as a wake-up call. Alexander Long, *The Park*, rallied his men with his exemplary tackling, and a more even contest ensued for the rest of the first half. On debut, Seb Aucott, *Lyon's*, managed to make his way through the Berkhamsted defence to score the first try of the match in the 12th minute, and Manny Oppong, *Rendalls*, had no problem converting. Shortly after, perhaps the best passage of play of the day was a well-worked try by a trio of Jake Jung, *The Knoll*, Mingyu Zhang, *West Acre*, and Timmy Aiyeola, *The Grove*. Jung's gains in ground kept Berkhamsted under pressure all afternoon. Berkhamsted's massive wingers made several attempts to power down the outside, but Aiyeola, Auberon Dragten, *Rendalls*, Tito Odunaik, *Elmfield*, and Oppong, all of whom served on Harrow's wings, were sturdier in defence than Harrow's centres, which is where the gaps were found for Berkhamsted to score.

After half-time, Dragten was also impressive in attack, showcasing his evasion skills in a try that he ran in from the halfway line. Up front, Bomi Shodipo, *The Grove*, also impressed at the breakdown; he was well supported by sturdy forwards Alexander Anderson, *Rendalls*, Monty Harrison, *Moretons*, and Stas Shatokin, *The Knoll*. Anderson and Shatokin have proved to be valuable additions to the C team pack. Prejeev Suhitharaan, *Druries*, returned from injury this week, demonstrating some of his strong running, which we have missed since the match at Dulwich College. As Harrow continued to give away needless penalties that kept Berkhamsted in the game in the second half, the home side's heads went down at the prospect of defeat. Some deft footwork from James Hyatt, *Elmfield*, inside the Berkhamsted 22 and a final strong run by Jung earned them two tries in the final five minutes. Hyatt had distributed good ball to the back line all afternoon, and he converted his try to bring Harrow up to 36 points. The final point difference suggests this was another convincing victory, but it would have been even greater if there had not been so many unforced errors. Nevertheless, the team remains unbeaten at half-term: 'Give to the boys October!'

Yearlings D Away Berkhamsted School Won 34-10

With our last fixture a month ago and a narrow loss to Dulwich, the sense of anticipation was palpable on the short coach journey to Berkhamsted. This week we had focused on some devastating backs' moves and on setting up attacks from the lineout. By Thursday, we already had considerable disruption in personnel, with injuries and boys returning to play in the Cs and Bs. Edward Shek, *Druries*, captaining the team for the first time, led from his new position as flanker, having trained for the past month as a full back. Shek's roars of encouragement complemented the composure of Loarn Lawson, *Elmfield*, who masterfully orchestrated the backs through the game as scrum half.

The first half was an uphill struggle. Literally. The 15% incline required some heroic stamina from Harrow as we also fought against the wind. We came out strong, carrying the ball particularly well in the forwards. The first try fell to Edward Lloyd-Day, *Newlands*, in the corner after some good offloading. Berkhamsted quickly replied. Cracks started to appear in our defensive play. Individuals were tackling well, but as a team, we were ragged: eyes stared uselessly at rucks rather than up at the opposition. Regularly, we had three or four Harrovians in the slipstream of a ruck and Berkhamsted had a considerable

overlap. The supreme speed and strength of Hugh Middle, *The Head Masters*, whose tackling has improved inordinately, saved us on more than one occasion. It wasn't long before Middle scored the try of the match, leaving the opposition for dead from the 22. The conversion from Lawson further secured a good lead. A penalty for hands in the ruck just before half-time made it 10-12.

When the whistle blew for the second half, Harrow turned into a team. The defensive shape was excellent: Hiro McLinden, *The Park*, and Danton Liu-Evans, *The Knoll*, put in hit after hit – consistently heaping pressure on Berkhamsted. Lawson held nothing back and was crunching boys twice his size. In the line out, 'Beast Ball' was used to great effect, leaving Berkhamsted powerless to resist the unstoppable Harrow maul. Billy Browne, *The Park*, was the man to claim glory from a great forwards' try. Then the floodgates opened. With the wind in our sails, the flying Daniel Shen, *Druries*, all knees, sliced through about six defenders with elegance. Then something happened to Edward Shek. He bouldered and barrelled and bolted through anyone in his path, even if it meant he had to run sideways across the whole pitch. Two for Shek and that was the game, with Joel Oturuoh, *Lyon's*, clinching a final conversion.

This was a promising win with the Yearling Ds starting to play as a team. Looking ahead, we need to see more phase play, forward sucking in the defence before we spread the ball out to our considerable talent at the backs.

Yearlings E Away Cranleigh School Boys Under-14D Lost 21-31

In our endless quest for worthy opponents, the Yearling Es travelled well outside the M25 for a battle with Cranleigh. For the uninformed, Cranleigh is in a beautiful area of southern Surrey with picturesque views, typical old British buildings, and narrow roads providing tough navigation for coach drivers.

After a brief delay with some three-point turns on country lanes, the squad arrived at Cranleigh still half asleep from the coach journey. Cranleigh got off to a furious start, with some strong runs up the middle and some sloppy tackling from Harrow resulting in try after try after try. It looked like it might be a long day (but a shorter match) for Harrow. The offensive side did not look much better, as dropped passes and lots of east-west running made progress upfield difficult. The score at the half, 26-0, was strongly in Cranleigh's favour.

However, as the common cliché goes, it was a tale of two halves. After a good chat at the half-time with big emphasis on running forward and attempting to tackle, the boys approached the match with a new sense of determination. Warren Chew, *Bradlys*, found himself in the right place at the right time near the try line to punch it in after a great run from Damon Chiu, *Newlands*. Chiu added an incredible conversion from the right touchline about 40m out.

Things stayed in Harrow's favour for much of the second half, with strong running and tackling from Fred Feng, *The Knoll*, and Alex Song, *Moretons*. Chiu added two more tries (with two conversions) to bring the score to 26-21. Down just a try, the boys were buzzing and the momentum had totally shifted. Unfortunately, an inopportune turnover on our end resulted in great field position for Cranleigh. They were able to take advantage as time expired to go up 31-21 and come

out on top. Overall, some of our best rugby of the season was played in the second half; next time out, we hope we can put together a full 50 minutes.

FOOTBALL

*1st XI Away Epsom College, ISFA Rd 2, Lost 2-1,
13 October*

The 1st XI failed to recover from a slow and timid start. Despite improving in the second half, they were made to pay for some profligate finishing on a disappointing afternoon.

*Junior Colts A Home Haberdashers' Elstree Schools
ISFA Rd 2, Won 1-0*

An extremely physical Haberdashers' side put Harrow under immense pressure in the opening 15 minutes of the game, both by pressing very high up the pitch and by winning many of the second balls. The home side grew into the game however, as Tobe Odogwu, *The Knoll*, asserted himself over the opposition no 9, and the midfield duo of Aris Aldrich-Blake-Ouzounis and Teddy Tarbottom, both *West Acre*, slowly began to dictate proceedings. The first half was dominated by the offside flag, as the high defensive lines of both teams squeezed the game into a very congested central third. Towards the end of the half, it became evident that Harrow were the superior side, and they grew in confidence with this knowledge in the second half.

A second-half switch from a 3-4-3 to a 3-5-2 allowed us to control the game better in the middle of the park, and this control eventually led to Lase Akindele's, *Newlands*, fantastic goal as he ran in behind the defence before rounding the keeper and slotting the ball home. In the remaining 15 minutes, Harrow were besieged by the away team, but never truly looked like conceding, largely thanks to the commanding presence of goalkeeper Seb Pesel, *Moretons*.

This was a superb performance from the entire squad, and the boys should be proud of their efforts as we look forward to the third round!

Ways to contact *The Harrovian*

Articles, opinions and letters are always appreciated.

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